IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF OHIO
EASTERN DIVISION

IN RE: OHIO EXECUTION PROTOCOL LITIGATION **This document relates to: PLAINTIFF HENNESS**	**Case No. 2:11-cv-1016** **CHIEF JUDGE EDMUND A. SARGUS, JR.** **Magistrate Judge Michael R. Merz** **DEATH PENALTY CASE: EXECUTION SCHEDULED FOR FEBRUARY 13, 2019**

Plaintiff Warren K. Henness's Motion for a Stay of Execution, a Preliminary Injunction, and an Evidentiary Hearing

In accordance with this Court's Scheduling Order (ECF No. 1914), Plaintiff Warren K. Henness moves this Honorable Court for a stay of execution, and, pursuant to Federal Rule of Civil Procedure 65(a), for a preliminary injunction on claims arising from his Fourth Amended Complaint, which is comprised of the Fourth Amended Omnibus Complaint (ECF No. 1252) and his Second Amended Individual Supplemental Complaint (ECF No. 1494).

Henness moves to stay the death warrant issued by the Supreme Court of Ohio and to bar Defendants and/or their agents, collectively and individually, from acting jointly or severally to implement or otherwise facilitate any part of the Defendants' Execution Protocol as to him. Henness similarly seeks to bar the same from attempting to execute him on February 13, 2019, by means of Defendants' Execution Protocol and policies which will deprive him

of his rights in violation of the Eighth and Fourteenth Amendments to the United States Constitution and 42 U.S.C. § 1983.

In light of Henness's imminent execution date, a preliminary injunction and stay of execution are necessary to allow Henness to litigate his claims before he is unconstitutionally executed. Henness further requests expedited discovery as needed, and an evidentiary hearing on this Motion, of sufficient duration to accommodate numerous expert and lay witnesses. The reasons supporting Henness's requests are explained in the attached memorandum in support.

The memorandum will first address bedrock scientific principles which must inform this Court's decision, including identifying various scientific matters that must be re-evaluated in light of those scientific principles and new evidence. Then Henness will explain why he can demonstrate a strong likelihood of success on the merits of his claims under the first prong of *Glossip v. Gross*, 135 S. Ct. 2726 (2015), including evidence presented by numerous experts and lay witnesses this Court has never heard nor considered. Next Henness will explain why he can demonstrate a strong likelihood of success on the merits of his claims under *Glossip*'s second prong, in the form of two different alternative execution methods this Court has not yet considered. Then Henness will explain why can satisfy the remaining injunctive relief factors. And finally, Henness will explain why this Court should grant a hearing on this motion.

Respectfully submitted,

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Memorandum in Support

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I. Introduction

You cannot use a Phillips head screwdriver to turn a flat-head screw, no matter how many such screwdrivers you try to use. Similarly, you cannot use IV-injected midazolam, a benzodiazepine drug that has no analgesic properties, to make a condemned inmate insensate to the severe pain and suffering associated with the drugs in Defendants' lethal injection protocol, no matter how many milligrams you administer.

There is no question here, at least as to the core issues. There is no uncertainty, despite Defendants' attempts to blur the subject matter with iconoclastic viewpoints that are outside the scientific mainstream. There is only previous misunderstanding, misinterpretation, and misapplication of the science which must be re-evaluated.

The eminent scientist Neil deGrasse Tyson once wrote that "the good thing about Science is that it's true whether or not you believe in it."[1] Indeed, we have seen advances in science that demonstrated previously understood ideas were, in fact, scientifically incorrect, often times with egregious consequences.[2] And, as the FBI recently acknowledged, when subsequent

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[1] Neil deGrasse Tyson, June 14, 2013, available at https://twitter.com/neiltyson/status/345551599382446081.

[2] *See* National Academy of Sciences Report, *Strengthening Forensic Science in the United States: A Path Forward* (2009); *see also, e.g.*, Spencer S. Hsu, *FBI admits flaws in hair analysis over decades*, Wash. Post, Apr. 18, 2015, available at https://www.washingtonpost.com/local/crime/fbi-overstated-forensic-hair-matches-in-nearly-all-criminal-trials-for-decades/2015/04/18/39c8d8c6-e515-11e4-b510-962fcfabc310_story.html?noredirect=on&utm_term=.6e06c4d6dfca (FBI and

developments undermine previous understandings of scientific ideas, it is incumbent on all of us to reassess those old notions in light of new evidence revealing a more accurate understanding of the scientific truth.[3] Even—perhaps especially—when judicial decisions, rather than empirical data or studies, have come to be a proxy for scientific validation. *See Commonwealth v. Gambora*, 933 N.E.2d 50, 60 n.17 (Mass. 2010).

This case is one of those instances. This Court, and others, have misapplied the science involved in lethal injection challenges involving midazolam, leading to conclusions that are inaccurate or simply not true from a scientific perspective. Since 2014, courts have found insufficient evidence to conclude that lethal injection protocols using IV-injected midazolam amount to cruel and unusual punishment. Sometimes that was due to insufficient factual development by the inmate challenging such a protocol, often on compressed time schedules. Other times the courts misinterpreted challengers' arguments, or overlooked misinterpreted the key scientific evidence. Often that was prompted by the States—including Defendants in this case—inserting distractions and doubt into the cases via experts offering

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U.S. Justice Department acknowledged flawed forensic testimony given by analysists in "elite FBI forensic unit," including in at least 32 cases that resulted in a death sentence); Eric Tucker, *FBI hair analysis problems reveal limits of forensic science*, May 12, 2015, available at https://phys.org/news/2015-05-fbi-hair-analysis-problems-reveal.html.

[3] FBI Press Release, *FBI Testimony on Microscopic Hair Analysis Contained Errors in at Least 90 Percent of Cases in Ongoing Review*, Apr. 20, 2015, available at https://www.fbi.gov/news/pressrel/press-releases/fbi-testimony-on-microscopic-hair-analysis-contained-errors-in-at-least-90-percent-of-cases-in-ongoing-review.

scientific theories that are iconoclastic and at odds with the general scientific consensus.

Sometimes the courts have explained away troubling evidence from executions by suggesting witnesses' accounts were inaccurate or perhaps biased, or by rationalizing what else the evidence might suggest, notwithstanding expert testimony. At times, the challengers made things unnecessarily confusing through sloppy language choices, leading to the courts misunderstanding what the challengers and their experts were asserting and, consequently, misinterpreting the evidence. And on other occasions, the parties—without any contrary argument by either side—used the wrong legal standard, leading the Court astray. But despite all that, the science in this case remains true, notwithstanding previous attempts to show it and resulting current misinterpretations of the science. And it is always incumbent upon the Court to reassess those previously mistaken factual conclusions in light of scientific evidence.

The Sixth Circuit mistakenly framed the relevant question as whether a challenger can demonstrate that "an inmate who receives a 500-milligram dose of midazolam is 'sure or very likely' to be conscious enough to experience serious pain from the second and third drugs in the protocol." *Fears v. Morgan*, 860 F.3d 881, 886 (6th Cir. 2017) (en banc). Specifically, that inquiry "concerns the *likelihood* that the inmate is conscious enough to experience that serious pain, whether physical or psychological." *Campbell v. Kasich*, 881 F.3d 447, 450 (6th Cir. 2018). Thus, this Court and the Sixth Circuit have already

recognized and accepted that the pain and suffering associated with the paralytic and potassium chloride would, if experienced by a condemned inmate, be unconstitutional.

But that framing of the purported "relevant question" is a direct manifestation of the scientific inaccuracies in this case that cry out for re-evaluation and correction. As stated, the inquiry misstates the actual relevant scientific question; it conflates three unique and distinct concepts—consciousness, awareness, and sensation—into just "consciousness." This Court consequently misinterpreted evidence demonstrating sensation; the significance of that evidence; the critical distinction between consciousness and sensation of pain; and the scientific truth that being unconscious does not prevent a person from experiencing pain in the absence of a true analgesic agent.

The nature of this case and other similar litigation in other States is one of basic scientific principles combined with evolving scientific understanding. Each execution using midazolam informs that evolution, as previously existing evidence takes on new significance in light of further scientific inquiry and discoveries. And that new evidence reconfirms the fundamental scientific principle that midazolam is not, and can never be, an analgesic drug, and therefore cannot make the inmate insensate.

Plaintiff Henness now presents the Court with the evidence necessary to say the time has come for this Court to re-evaluate many of its previous factual conclusions. The relevant inquiry on *Glossip*'s first prong, framed from a

scientifically accurate perspective, is whether an inmate who receives a 500-milligram dose of midazolam is sure or very likely to experience the serious pain associated with the drugs in the protocol, including the pain we now understand such a large dose of IV-injected midazolam itself causes. And that, in turn, can be distilled even further as follows: "Does midazolam at any dose act as a pain-blocking drug?" And the scientific consensus answer to that is "No."

While the courts have previously suggested that Defendants' experts' theories are equally valid so as to draw into question the opinions various Plaintiffs' experts offered, Henness will demonstrate the overwhelming scientific consensus dictating otherwise. Henness will show it is also true, as a matter of scientific consensus, that midazolam simply does not block pain, and thus does not—indeed, cannot—protect the condemned from experiencing the full measure of severe pain and suffering. It is a Phillips head screwdriver, trying to turn a flat-head screw. And, Henness will also demonstrate that is true at any dose, whether in the operating room or the execution room and regardless of whether there exists a clinical study examining the effects of 500 mg or more of midazolam. Expert testimony and application of the Scientific Method will establish the scientific truth of the matter.

Further evidence gleaned from recent executions will demonstrate that as well. So too does data Henness will present about benzodiazepine overdoses, data that is scientifically relevant to showing midazolam's inability to function as an analgesic in a lethal injection execution. Henness will further

demonstrate that it is sure or very likely that a condemned inmate remains sensate to the severe pain and suffering to which he is being subjected, even if he is superficially seen as nonresponsive to Defendants' purported "consciousness checks," and that he remains so after injection of the paralytic and potassium chloride.

Consequently, it is sure or very likely that inmates, executed using an execution protocol dependent on a large dose of IV-injected midazolam to block the severe pain from a paralytic and potassium chloride, experienced the severe pain and suffering associated with those two latter drugs. As Henness will demonstrate, previous factual conclusions to the contrary miss the mark and must be re-evaluated.

Moreover, scientific evidence reveals an additional source of terror and horrific suffering caused by Defendants' preferred three-drug midazolam method—serious pain and suffering this Court has not yet considered but which Henness and other condemned inmates will surely or very likely suffer. Midazolam in the injectable form is a highly corrosive acid. Henness will demonstrate that intravenously injecting large doses of midazolam is sure or very likely to cause the inmate to suffer terror and horrific suffering from acute pulmonary edema. In other words, Henness will demonstrate that so much acidic midazolam, injected intravenously, immediately starts to destroy the delicate blood vessels and lung tissue, rapidly causing the inmate's lungs to fill with fluid as he drowns and suffocates, unable to exchange air through respiration. That acute pulmonary edema does not just establish another

source of severe pain and suffering the inmate will surely or very likely feel. It also provides a sufficiently noxious stimulus to break through the sedative effect of the IV-injected overdose of midazolam. Not only will he remain sensate, but the noxious stimuli of pulmonary edema makes it sure or very likely he will be conscious and aware as well. Henness will surely or very likely suffer the severe terror and horror of drowning on his own fluids on top of surely or very likely experiencing the severe pain and suffering associated with the second and third drugs that follows, regardless of—indeed, because of—the massive overdose of midazolam. Furthermore, old evidence recounting an inmate's statement after IV injection of a large dose of midazolam must be reconsidered as evidence establishing that large doses of IV-injected midazolam are also causing severe burning sensations as a large volume of acid courses through the inmate's veins. That is, Henness will demonstrate that the IV-injected overdose of midazolam, far from protecting the condemned inmate from experiencing severe pain and suffering during a lethal injection execution, virtually guarantees—makes it sure or very likely—that he will.

The bottom line, therefore, is that Henness will demonstrate it is sure or very likely that he will experience severe pain and suffering associated with Defendants' lethal injection protocol drugs and their application during his execution because he will remain sensate in the absence of an analgesic drug. And even under the scientifically incorrect phrasing of the relevant issues, Henness will show that an inmate who receives a 500 mg dose of midazolam is sure or very likely to be "conscious" enough to experience serious pain and

suffering from all three drugs, not just the second and third drugs in the protocol. *See Campbell v. Kasich*, 881 F.3d 447, 450 (6th Cir. 2018); *Fears v. Morgan*, 860 F.3d 881, 886 (6th Cir. 2017) (en banc).

That is, Henness can satisfy the first prong from the Supreme Court's test articulated in *Baze v. Rees*, 553 U.S. 35, 50–52 (2008), and *Glossip v. Gross*, 135 S. Ct. 2726, 2737 (2015).

Plaintiff Henness can also satisfy the second *Glossip* prong. He has alleged, and will demonstrate, that using an oral injection of a drug or drugs commonly used in the "medical-aid-in-dying" (MAID) context is available, feasible and readily implemented with ordinary transactional effort, and that those two alternative execution methods would each significantly reduce a substantial risk of severe pain posed by the current execution method. *Glossip*, 135 S. Ct. at 2726 (citing *Baze*, 553 U.S. at 52); *see also id.* at 2737 (describing challenger's burden "of establishing that any risk of harm [posed by the current method] was substantial when compared to a known and available alternative method of execution."). Specifically, Henness will demonstrate with evidence and expert testimony that executing him by oral injection of 10 grams of secobarbital mixed with four ounces of sweet liquid satisfies his second *Glossip* burden. Henness likewise will demonstrate that executing him by oral injection of 3.75 grams midazolam, 100 mg digoxin, 15 grams morphine sulfate, and 2 grams propranolol satisfies his second *Glossip* burden.

This Court has not yet had occasion to consider the two alternative execution methods that Henness alleges pose significantly less risk of severe

pain and suffering than the current method. But he will demonstrate that both alternatives remove IV-injected midazolam, as well as the paralytic and potassium chloride used in the current method. Henness will, accordingly, demonstrate that both alternatives eliminate *any* risk of serious pain and suffering from acute pulmonary edema, from severe burning sensations following IV injection of that much highly acidic midazolam, or from problems obtaining and maintaining peripheral IV access akin to the attempted executions of Romell Broom and Alva Campbell Jr. He will demonstrate both alternatives eliminate *any* risk of serious pain and suffering associated with the second and third drugs in the current protocol. Additionally, Henness will demonstrate that both his alleged alternatives eliminate *any* risk of him experiencing severe pain and suffering posed by the current protocol because both alleged alternatives, unlike the current 3-drug midazolam method, include a true pain-blocking drug.

Further, Henness will demonstrate that both alleged alternatives involve drugs that are obtainable with ordinary transactional effort, thus showing those alternatives are "available" and "readily implemented." *Fears*, 860 F.3d at 891. Indeed, Defendants have already conceded the availability point as to the drugs in the four-drug alternative, and as to the medical supplies necessary to administer the alternative drugs orally. (*See* Defs.' Amended Answer, ECF No. 1842, PageID 74543.) And Henness will present evidence to establish that secobarbital can be obtained through ordinary transactional effort as well. Henness will demonstrate both alternatives are "feasible," as

well. To wit, both alternative methods have been used successfully to facilitate a death that is painless—and certainly less than severely painful—on hundreds of occasions in the MAID context. And he will further demonstrate that both alternatives can be administered by those with a level of training commensurate with the Execution Team Member Defendants.

In sum, Henness will establish that both alleged alternative methods are "feasible," as well as "available" and "readily implemented" with ordinary transactional effort, sufficient to meet his burden of proof on the Sixth Circuit's interpretation of *Glossip*'s second prong.

Finally, Henness can demonstrate a *Baze*/*Glossip* Eighth Amendment claim in a slightly different way. In *Baze*, the Court explained that "[i]f a State refuses to adopt" an alternative that is feasible, readily implemented and significantly reduces a substantial risk of severe pain "in the face of these documented advantages, without legitimate penological justification for adhering to its current method of execution, then a State's refusal to change its method can be viewed as 'cruel and unusual' under the Eighth Amendment." 553 U.S. at 52. The Court reiterated that path when it analyzed "Kentucky's failure to adopt petitioner's proposed alternatives" as a separate and distinct analysis on whether the State's "execution procedure is cruel and unusual." *Id.* at 56. Likewise, the Eighth Circuit explained that, under *Baze*/*Glossip*, "a State *may be obliged* under the Constitution to implement an alternative method of execution." *Johnson v. Precythe*, No. 17-2222, 2018 U.S. App. LEXIS

24153, *12 (8th Cir. Aug. 27, 2018) (citing *Baze*, 553 U.S. at 52) (emphasis added).

Accordingly, Henness can demonstrate an Eighth Amendment claim here by showing that there is an alternative execution method that is feasible, readily implemented, and which significantly reduces a substantial risk of severe pain from the current method, but which Defendants, without legitimate penological justification, refuse to adopt. Or, to paraphrase *Johnson*, Henness can show there is a method that Defendants are obliged under the Constitution to implement, but which they do not use. Henness will present evidence to satisfy this flavor of an Eighth Amendment violation too.

II. Procedural Background

By order of the Supreme Court of Ohio issued November 28, 2012, as subsequently modified by Defendant Governor Kasich's warrants of reprieve, Defendants will attempt to execute Plaintiff Henness on February 13, 2019, at or about 10:00 a.m., at the Southern Ohio Correctional Facility ("SOCF"). It is believed that Defendants will use the Execution Protocol effective October 7, 2016.[4] Specifically, it is believed that Defendants will use the three-drug option in the Execution Protocol that includes peripheral IV injection of midazolam, a paralytic, and potassium chloride.

[4] All references herein to Defendants' protocol shall mean the version of DRC Policy 01-COM-11 effective October 7, 2016, unless otherwise specified.

Effective October 7, 2016, Defendants made significant changes to Ohio's execution protocol. Thereafter, and in accordance with this Court's scheduling orders (ECF Nos. 1128, 1268, 1398), Henness filed his Fourth Amended Complaint, which is comprised of the Fourth Amended Omnibus Complaint (ECF No. 1252) and his Second Amended Individual Supplemental Complaint (ECF No. 1494). Those pleadings provided a detailed account of the long and winding history of this litigation and Defendants' actions associated with carrying out lethal injection executions, as well as numerous allegations regarding the current three-drug execution method and the properties and effects of midazolam, the paralytic drug, and potassium chloride, with which Defendants intend to execute him. Henness incorporates those allegations here by reference. (*See* Henness Second Am. Individ. Supp. Compl., ECF No. 1494, PageID 60153–321; Fourth Am. Omnibus Compl., ECF No. 1252, PageID 45474–721.)

The changes and additions to the written 2016 Execution Protocol dramatically affect Henness's rights, and expose him to serious constitutional violations in the course of carrying out his lethal-injection execution under the Execution Protocol. Among those changes is the provision allowing Defendants to carry out an execution using a revised three-drug execution method requiring peripheral intravenous injection of midazolam, a paralytic drug, and potassium chloride. Defendants have now carried out three executions using this three-drug midazolam protocol; those of Ronald Phillips, Gary Otte, and Robert Van Hook. They have carried out one other execution using midazolam

as well, that of Dennis McGuire. And they attempted—but failed—to carry out another execution in November of 2017, that of Alva Campbell, Jr. Each of those executions presented evidence which, if understood correctly, put Defendants on notice of serious problems with the current protocol. Likewise, several other executions in other jurisdictions using the same or functionally similar protocols provided further evidence of unconstitutional problems. If Defendants are permitted to do go forward with Henness's execution, the history of this case and of using peripherally injected midazolam as part of a lethal injection protocol strongly suggests additional problems will arise.

Because the Court is familiar with the long history of this case, and in the interests of brevity, Henness does not repeat here the full history of this case as included in Plaintiffs Phillips, Tibbetts, and Otte's Motions for Preliminary Injunction (ECF Nos. 714, 715, 718), but will reference that history as necessary throughout this motion. He also notes this Court denied injunctive relief to Campbell and Tibbetts, *In re Ohio Execution Protocol Litig. (Campbell & Tibbetts)*, No. 2:11-cv-1016, 2017 U.S. Dist. LEXIS 182406 (S.D. Ohio Nov. 3, 2017), which the Sixth Circuit affirmed, *Campbell v. Kasich*, 881 F.3d 447 (6th Cir. 2018). Those decisions were based on a lack of evidence to establish claims involving the second and third drugs in Defendants' three-drug protocol and an alleged alternative execution method that was different from the one Henness alleges here.

III. This Court Should Grant Henness A Stay Of Execution And A Preliminary Injunction.

The purpose of preliminary injunctive relief is to preserve the status quo until the rights of the parties can be fairly and fully litigated through a final hearing or trial on the merits of a permanent injunction. *See Texas v. Camenisch*, 451 U.S. 390, 395 (1981) ("the purpose of a preliminary injunction is merely to preserve the relative positions of the parties until a trial on the merits can be held"); *Performance Unlimited v. Questar Publishers*, 52 F.3d 1373, 1378 (6th Cir. 1995). A stay of execution is warranted when the inmate seeks additional time to raise his claims beyond what his scheduled execution date allows. *See Martiniano v. Bell*, 454 F.3d 616 (6th Cir. 2006).

In considering whether injunctive relief in the form of a preliminary injunction is warranted, this Court must consider (1) whether Henness has demonstrated a strong likelihood of success on the merits; (2) whether Henness will suffer irreparable harm in the absence of equitable relief; (3) the probability that granting the injunction will cause substantial harm to others; and (4) whether the public interest will be advanced by issuing the injunction. *Miller v. City of Cincinnati*, 622 F.3d 524, 533 (6th Cir. 2010). No single factor is determinative. *Michigan Bell Tel. Co. v. Engler*, 257 F.3d 587, 592 (6th Cir. 2001). The four factors are to be balanced; they are not prerequisites to be met. *Certified Restoration Dry Cleaning Network, L.L.C. v. Tenke Corp.*, 511 F.3d 535, 542 (6th Cir. 2007) (citing *Jones v. City of Monroe*, 341 F.3d 474, 476 (6th Cir. 2003) and *In re: De Lorean Motor Co.*, 755 F.2d 1223, 1228 (6th Cir. 1985)). Accordingly, the degree of likelihood of success required to obtain a

preliminary injunction may depend on the strength of the other three factors. *De Lorean Motor Co.*, 755 F.2d at 1229.

The same factors apply for injunctive relief in the form of a stay of execution. *Hill v. McDonough*, 547 U.S. 573, 584 (2006) (explaining that "like other stay applicants, inmates seeking time to challenge the manner in which the State plans to execute them must satisfy all of the requirements for a stay, including a showing of a significant possibility of success on the merits"). Additionally, in considering whether to grant a stay of execution, the Court must also consider whether an inmate has delayed unnecessarily in bringing a claim. *Nelson v. Campbell*, 541 U.S. 637, 649-50 (2004).

Granting a stay of execution along with a preliminary injunction is proper. *See Nken v. Holder*, 556 U.S. 418, 428–29 (2009) (distinguishing between a stay, which suspends the source of authority to act and "operates upon the judicial proceeding itself," and an injunction, which prohibits persons from taking any action because it "is directed at someone, and governs that party's conduct").

Although Henness seeks a stay of execution and a preliminary injunction on a few of his claims, it is not necessary for him to demonstrate a likelihood of success on the merits of each of his claims; any of the asserted grounds entitles Henness to preliminary injunctive relief and a stay of execution. Nevertheless, Henness has a strong likelihood of success on the merits of each of the claims asserted below. Consequently, a stay of execution and preliminary injunction is appropriate on each of those grounds.

A. The scientific methodology and conclusions previously reached in this case must be re-evaluated.

Applying core scientific principles, including the Scientific Method, requires re-evaluation of the scientific methodology applied and scientific conclusions previously reached in this case. The science involved in this case is simple, but deceptively so. Too often litigants, untrained in medicine but wrestling with matters related to lethal injection, have muddied the factual picture rather than successfully presenting the fundamental scientific facts and general consensus on key matters. And courts, typically facing the urgent press of an impending execution and doing their best to learn and apply a crash course in complex scientific matters in very little time, have consistently misinterpreted or misapplied the science as a result. Each subsequent judicial decision has calcified those flaws, further insulating them from the rigorous re-evaluation that is necessary in the wake of executions that demonstrate a consistent pattern of troubling inmate reactions. Those previous judicial decisions must be re-evaluated, and should not preclude relief here.

Scientific advances are an appropriate factor for courts to consider when determining whether existing precedent applies. *See Pickett v. Brown*, 462 U.S. 1, 17 (1983); *In re Methyl Tertiary Butyl Ether ("MTBE") Products Liability Litigation*, 457 F.Supp.2d 298, 314-16 (S.D.N.Y. 2006). And "[s]ometimes, with the benefit of insight gained over time, we learn that what was once regarded as truth is myth, and what was once accepted as science is superstition." *Han Tak Lee v. Tennis*, No. 4:08–CV–1972, 2014 WL 3894306, at *1 (M.D. Pa. Jun. 13, 2014), *adopted* 2014 WL 3900230 (M.D. Pa. Aug. 8, 2014), *aff'd by Han*

Tak Lee v. Houtzdale SCI, 798 F.3d 159 (3d Cir. 2015). "Indeed, prior legal rulings may no longer reflect valid science[.]" *Clark v. Edison*, 881 F.Supp.2d 192, 207 (D. Mass. 2012). Furthermore:

> Science evolves, and scientific methods that were once considered unassailable truths have been discarded over time. Unreliable testimony based upon those outdated theories and methods must be discarded as well, lest scientific *stare decisis* ensure that such theories survive only in court.

Id. (quoting *Bone Shirt v. Hazeltine*, 461 F.3d 1011, 1026 (8th Cir. 2006) (Gruender, J., concurring)). And that is precisely the current situation here. Those prior legal rulings do not reflect valid science.

Scientific progress has undermined earlier court decisions finding that the use of IV-injected midazolam in a lethal injection protocol comports with the Eighth Amendment. In addition, a review of the record demonstrates that previous decisions upholding the use of IV-injected midazolam—each of which occurred in preliminary injunction contexts and which, therefore, should not be binding on later proceedings in the absence of a final judgment—misapprehended the scientific evidence that had been presented to the courts. From that misapprehension flowed scientifically flawed analysis, application, and conclusions.

Accordingly, these earlier decisions are not controlling. This Court can and must engage in a rigorous re-evaluation of the science at issue with Defendants' three-drug midazolam execution protocol. That re-evaluation must be done through the proper lens of scientific principles, including the most basic scientific principle of all, the Scientific Method. Reviewed correctly,

scientific concepts and conclusions the courts previously understood to be correct and applied take on a new, critically different understanding. Henness will present expert evidence in support of his arguments at a hearing on this motion. In light of the evidence Henness will present, the scientific conclusions, principles, and methodology that require this Court's re-evaluation include the following:

1. This Court and the Sixth Circuit have contravened the Supreme Court's standard by concluding the Eighth Amendment does not require an inmate must be insensate to severe pain and suffering like that associated with the second and third drugs in Ohio's protocol.

This Court and the Sixth Circuit have erroneously conflated "insensation" and "unconsciousness" to reject previous motions for injunctive relief under the Eighth Amendment. That conflation is incorrect as a matter of fundamental science, which will be discussed in the following subsection.

But as a practical matter, that misinterpretation also lead to this Court's conclusion, favorably noted by the Sixth Circuit, that the Eighth Amendment does not require that the inmate be insensate. That conclusion, which lies at the very heart of this case, is contrary to Supreme Court precedent and must be re-evaluated accordingly.

This Court rejected previous injunctive relief motions by stating it is "not aware of any precedent requiring that an inmate be in the state of General Anesthesia before injections of rocuronium bromide or potassium chloride, the second and third drugs in the Execution Protocol. In fact, the Supreme Court has recognized that some pain is incidental to any lethal injection procedure."

In re Ohio Execution Protocol Litig. (Campbell & Tibbetts), No. 2:11-cv-1016, 2017 U.S. Dist. LEXIS 182406, *36–37 (S.D. Ohio Nov. 3, 2017). Because "some pain" is permitted, this Court reasoned, and because "a person who is 'insensate' would not experience any pain," insensation was not necessary under Ohio's protocol. *Id.* (citations omitted). Similarly, this Court later reiterated that "rendering a subject completely insensate to pain[] is not constitutionally required." *Id.* at *58. The Sixth Circuit quoted that language approvingly. *Campbell*, 881 F.3d at 452.

But that understanding is erroneous and contravenes Supreme Court authority. And the Supreme Court language on which this Court and the Sixth Circuit relied simply does not apply to the circumstances in Ohio's protocol at issue here. Under these circumstances, and specifically as to the severe pain and suffering in question, insensation *must* be constitutionally necessary, because the only alternative is full sensation and thus exposure to the indisputably unconstitutionally severe pain and suffering associated with the drugs in Defendants' protocol.

First, this Court is factually incorrect to disregard insensation as the required state on the belief that an inmate would be insensate to *all* pain in an execution protocol if he is rendered insensate to the pain associated with the lethal drugs. The inmate would, after all, endure the pain of having the peripheral IVs established in the first place. That is part of the lethal injection protocol to which Henness will be subjected. At that point, he will not have been administered a pain-blocking drug, and therefore suffer some amount of

pain as needles puncture his skin and veins. Assuming competent placement of the peripheral IVs, that pain —not the severe pain and suffering associated with the protocol drugs themselves—is the type of "pain incidental to execution" that the Eighth Amendment does not prohibit. But the fact that the Supreme Court is willing to allow an inmate to endure some amount of that IV-related pain cannot be construed to give Defendants a pass on subjecting Henness and others to a sure or very likely risk of severe pain and suffering associated with the drugs in the protocol itself.

The context of *Baze* confirms that conclusion. Significantly, the *Baze* Court recognized that subjecting an inmate to death by suffocation from the paralytic or the pain from injection of potassium chloride was constitutionally unacceptable absent a first drug to protect the inmate from those severe harms. *Baze*, 553 U.S. at 53. Because sensation is binary, and because being sensate to the severe pain and suffering associated with the drugs in Ohio's protocol is constitutionally prohibited, it follows that Henness must be made insensate before being subjected to that drug-related severe pain. Accordingly, this Court's assessment that insensation is never constitutionally required in a lethal injection execution must be re-evaluated.

Second, the Court in *Baze* used the terminology adopted by the parties in that case—litigated over 10 years ago—and thus used "unconscious" as a proxy for the more accurate consideration: sensation. Read with the proper scientific terminology, and assuming *arguendo* that midazolam is equivalent in all respects to sodium thiopental, the Supreme Court's statement clarifies the core

issue here; "[F]ailing a proper dose of [midazolam] that would render the prisoner [insensate], there is a substantial, constitutionally unacceptable risk of suffocation from the administration of [the paralytic] and pain from the injection of potassium chloride." *Id.*

Understood in that context, therefore, it is clear the Supreme Court would not tolerate the pain and suffering associated with the second and third drugs. That is, something must prevent the inmate from feeling that pain and suffering. Again, sensation is binary; consequently, this Court's rejection of "insensation" as the required state for the inmate must be re-evaluated.

Third, if there is any doubt that the Eighth Amendment requires the inmate be made insensate before exposing him to severe pain and suffering associated with the drugs in Defendants' protocol, the Supreme Court's majority and principal dissenting opinions in *Glossip* sweep that doubt away by expressly focusing on sensation as the key consideration. True, the majority opinion conflated "unconsciousness" and "insensation" on occasion, but it made clear throughout, repeatedly, that the Eighth Amendment requires insensation in the context of a protocol like Defendants' that includes drugs that pose a sure or very likely risk of causing severe pain and suffering.

For example, the Supreme Court found great significance in the fact that Oklahoma's new "protocol also includes procedural safeguards [beyond the first drug] to help ensure that an inmate remains *insensate* to *any pain* caused by the administration of *the paralytic agent and potassium chloride*." *Glossip*, 135 S. Ct. at 2735 (emphases added). The Court specified both the amount of pain

associated with the paralytic and potassium chloride from which the inmate must be protected (*i.e.*, "any" of that type of pain), and the critical scientific term (insensation) necessarily applicable to the inmate. Anything less than insensation would be sensation, thereby unconstitutionally subjecting the inmate to the severe pain and suffering associated with the drugs.

Additional portions of *Glossip* reconfirm this fundamental point. The Court repeatedly explained its analysis in terms of insensation as the key protection against severe pain and suffering in an execution protocol. *See, e.g.*, 135 S. Ct. at 2739 (finding no clear error in district court's finding on the record before it that midazolam was "highly likely to render a person *unable to feel pain* during an execution") (emphasis added); *id.* at 2739–40 (noting other courts have concluded that the use of midazolam as the first drug in a three-drug protocol is likely to render an inmate *insensate to pain that might result from administration of the paralytic agent and potassium chloride*") (emphasis added); *id.* at 2741 (affirming district court ruling in part because "[t]estimony from both sides supports the District Court's conclusion that midazolam can render a person *insensate to pain*") (emphasis added); *id.* at 2743 ("The relevant question here is whether midazolam's ceiling effect occurs below the level of a 500-milligram dose and at a point at which the drug does not have the effect of *rendering a person insensate to pain caused by the second and third drugs*.") (emphasis added); *id.* at 2744 (no clear error when district court found only speculative evidence insufficient to show that ceiling effect "negates midazolam's ability to render an inmate *insensate to pain caused by the second*

and third drugs in the protocol") (emphasis added); *id.* (criticizing principal dissent for avoiding suggestion that petitioners presented evidence about midazolam dose "at which the ceiling effect occurs or about whether the effect occurs *before a person becomes insensate to pain*"); *id.* (emphasizing belief that district court "heard evidence that [midazolam] can render a person *insensate to pain*") (emphasis added).

In one especially relevant part of *Glossip*, the principal dissent asserted that evidence about the ceiling effect dosage of midazolam is irrelevant if there is no dose at which the drug can render a person insensate to pain. *See id.* at 2743. If insensation to pain like that associated with the drugs in the protocol was not the relevant requirement, as this Court now suggests, the majority would have said so, and dismissed the principal dissent's argument on that basis. Instead, however, the majority *confirmed* its focus on sensation. It insisted that there was, indeed, record evidence on which the district court could conclude that midazolam at high doses would render the inmate insensate to pain. *Id.* As proof, the majority cited testimony that higher doses of midazolam might be expected to produce lack of response to stimuli such as pain. *Id.* By doing so, the Court displayed its scientifically mistaken understanding that lack of response to stimuli (*i.e.*, being sufficiently unconscious to be unable to respond to the "consciousness checks") necessarily means the inmate is insensate to pain. But that conflation of unconsciousness and insensation is a scientific matter that must be re-

evaluated; it is also beside the point in this specific section, and will be addressed below.

The key point for present purposes is that the Supreme Court measured that record evidence against a standard that required the inmate to be insensate to severe pain such as the pain associated with the second and third drugs. Indeed, the Court did so explicitly in the very next paragraph, when it described the challenger's burden as establishing "that midazolam's ceiling occurred at . . . a point at which the *drug failed to render the recipient insensate to pain*." *Id.* at 2743 (emphasis added); *see also id.* at 2744 (noting testimony "that a properly administered 500-milligram dose of midazolam will *render the recipient unable to feel pain*") (emphasis added).

In sum, under the Supreme Court's precedent, the severe pain and suffering associated with the drugs in Defendants' protocol that Henness will be sure or likely to endure is constitutionally intolerable. The only way to prevent Henness from suffering that severe pain, as a simple scientific matter and under the Supreme Court's binding analysis and reasoning, is to make him insensate through an analgesic or barbiturate. This Court's analysis varies from the Supreme Court's analysis, however.

In view of this clearly and repeatedly expressed Supreme Court standard, this Court must re-evaluate its previous rejection of insensation as the constitutionally required protection against the severe pain and suffering associated with the drugs in Defendants' protocol. Contrary to this Court's

observation, rendering Henness insensate to the pain associated with the protocol drugs *is,* indeed, constitutionally required under *Baze* and *Glossip*.

2. The courts have asked the wrong "relevant" question: sensation, not consciousness, is the critical inquiry.

The *Glossip* majority accepted as a constitutional given that the inmate must be insensate to severe pain and suffering such as that associated with the second and third drugs. *See* Section III.A.1 above. But it made the same scientific mistake this Court and the Sixth Circuit have made by conflating "unconsciousness" and an inmate's non-responsiveness to the "consciousness checks" with the inmate's inability to feel the severe pain. *See Glossip*, 135 S. Ct. at 2742 (noting that "low doses of midazolam are sufficient to induce unconsciousness"); *id.* at 2743 (expressly characterizing testimony that higher doses of midazolam might produce lack of response to stimuli such as pain as "evidence that the drug can render a person insensate to pain"). This Court and the Sixth Circuit have made the same critical error.

The Sixth Circuit framed the "relevant question" as follows: whether there is sufficient evidence to demonstrate that an inmate who receives a 500-milligram dose of midazolam is "sure or very likely" *to be conscious enough to experience serious pain* from the drugs in the protocol. *Fears v. Morgan*, 860 F.3d 881, 886 (6th Cir. 2017) (en banc). And the court invoked the same basic construct throughout *Fears*, including:

- *id.* at 887 (faulting findings that did not "support the conclusion that a 500-milligram dose of midazolam is very likely to leave an

inmate *conscious enough to feel serious pain*") (emphasis added); and

- *id.* (observing that certain other states' abandonment of midazolam in a protocol did not "provide reason to infer that 500 milligrams of midazolam is sure or very likely to leave an inmate *conscious enough to feel serious pain*") (emphasis added).

The Sixth Circuit reiterated that language from *Fears* in a subsequent opinion, explaining that "the 'relevant question' was 'whether the plaintiffs met their heavy burden to show than an inmate who receives a 500-milligram dose of midazolam is sure or very likely *to be conscious enough to experience serious pain* from the [protocol] drugs." *Campbell v. Kasich*, 881 F.3d 447, 450 (6th Cir. 2018) (emphasis added). Once again, the court repeated variations on that understanding throughout its opinion:

- *id.* (citing *Fears* to state the "relevant question now, as it was then, concerns the *likelihood* that the inmate is conscious enough to experience that serious pain, whether physical or psychological") (underlined emphasis added);
- *id.* (stating "[t]hat they anticipate more pain does not mean that they are 'sure or very likely to be *conscious,' such that they would even feel that pain*") (emphasis added);
- *id.* at 450–51 ("The question that nevertheless remains is whether [the challengers] 'met their heavy burden to show that an inmate who receives a 500-milligram dose of midazolam is sure or very

likely *to be conscious enough*'") (emphasis added) (quoting *Fears*, 860 F.3d at 886).

This Court has used similar language and erroneously focused on consciousness. In a particularly telling observation, this Court gave significance to the "dose of midazolam in use here, a multiple of the highest recommended clinical dose, [because it] appears to be *sufficient to suppress consciousness to the extent that an inmate will not respond to the consciousness checks* used by emergency medical technicians and used by Ohio." *In re Ohio Execution Protocol Litig. (Campbell & Tibbetts)*, No. 2:11-cv-1016, 2017 U.S. Dist. LEXIS 182406, *56 (S.D. Ohio Nov. 3, 2017) (emphasis added). The Sixth Circuit's articulation of the "relevant question" can be drawn directly to this statement. But whether an inmate is sufficiently conscious or not to be able to respond to the consciousness checks is a different matter altogether than whether that inmate is sensate to the severe pain associated with the drugs (or, indeed, whether he is sensate to the stimuli from those consciousness checks).

Relatedly, this Court noted the "Sixth Circuit accepted in *Fears* this Court's finding that injection of *a fully conscious person* with rocuronium bromide and potassium chloride would cause severe pain sufficient to meet the Eighth Amendment standard. But it is clear that a person given even a clinical dose of midazolam is not *'fully conscious.'*" 2017 U.S. Dist. LEXIS 182406, *37–38 (citation omitted, emphases added). This Court similarly phrased

matters in a different opinion denying injunctive relief to former Plaintiff Otte, observing as follows:

> As to whether Ohio's three-drug protocol is sure or very likely to cause severe pain, the evidence before this Court stands essentially where it did at the end of the January 2017 hearing as evaluated by the *en banc* Sixth Circuit: the second and third drugs will certainly cause pain if injected into a *fully conscious person*, but Otte still has not proven that he is certain or likely to experience that pain after having been injected with a 500 mg. dose of midazolam.

In re Ohio Execution Protocol Litig. (Otte), No. 2:11-cv-1016, 2017 U.S. Dist. LEXIS 145432, *37–38 (S.D. Ohio Sept. 8, 2017) (emphasis added). This Court also articulated its understanding of the core issue as whether "the midazolam has produced *unconsciousness thus rendering him insensate to the pain* caused by administration of the paralytic drug and potassium chloride." *Id.* at *38 (emphasis added). This Court similarly stated that neither the Sixth Circuit nor the Supreme Court "has adopted any particular degree of consciousness as constitutionally required in a lethal injection execution." *In re Ohio Execution Protocol Litig. (Otte)*, No. 2:11-cv-1016, 2017 U.S. Dist. LEXIS 145432, *43 (S.D. Ohio Sept. 8, 2017).

But those statements reveal the core scientific flaw, the original sin from which the other scientific inaccuracies flow, and which must be re-evaluated. The Court's statement echoes the Sixth Circuit's focus on whether an inmate would be "conscious enough to feel pain," which in turn originated in an earlier order from this Court. But the Court's statement, like the Sixth Circuit's articulation of the relevant inquiry, asks entirely the wrong question by

focusing on the inmate's *level of consciousness* and whether an inmate would experience severe pain and suffering if "fully conscious" or at some other level of "consciousness."

Instead, the key term for consideration, from a scientific standpoint, is "sensation." Conflating sensation and consciousness, regardless of which court made the error, is incorrect as a scientific matter, and it must be re-evaluated.

As applicable in the execution context, consciousness is, at bottom, the ability to tell someone what one is experiencing, to articulate or convey what is happening to him or her. Awareness, meanwhile, is being able to understand the context of one's surroundings. But sensation is the ability to feel and experience external stimuli, including severe pain. And that is the important consideration in the lethal injection context, not whether the inmate can convey to another person what it is happening to him (*i.e.*, via responding to the "consciousness checks"), or whether the inmate is able to understand the context in which he is feeling severe pain and suffering. One can be unconscious but still feel pain. One can be unaware and still feel pain. On the other hand, one can be conscious or less than "fully" conscious and subjected to a severely painful stimulus, while not feeling that pain because an analgesic agent has been used to make one insensate. But that is because the analgesic agent blocks certain neural pathways or works on pain receptors, not because of some diminished level of consciousness. Whether the amnestic effect of a drug leaves a subject with no memory of feeling pain during a painful procedure has no bearing on whether the subject is actually feeling the pain in

the moment. By the same token, while an inmate's level of consciousness may be sufficiently suppressed through a sedative like midazolam such that he cannot articulate that he is in pain, that has no bearing on *whether he is actually feeling that pain*.

Plaintiffs' experts in this case have been consistent on this point, although some misinterpretations of those scientific concepts have found their way into written work product by counsel and court alike. For example, Dr. Bergese testified that a level of anesthesia is insufficient to be General Anesthesia if it keeps the patient "immobile and unconscious but is not enough for the patient to feel insensate [to] pain." (Tr. of Hearing, ECF No. 923, PageID 30820.) He likewise described a "device [which] will measure pain under anesthesia because [the] concern here is that since you are depressed into [un]consciousness, you can't tell if that patient has or has not pain." (*Id.* at PageID 30821.) He also explained that "you can be unconscious and you can [still] have pain." (*Id.* at PageID 30820.) Dr. Bergese also testified that it was critical that the first drug in Ohio's execution protocol be able to render the inmate insensate, as well as fully unaware and fully unconscious. (*Id.* at PageID 30837.)

Dr. Bergese also explained that consciousness affects whether one will react to pain, not whether one will feel the pain at all: "So if the consciousness was not depressed enough, not only that patient or inmate in this case was going to feel pain but also is going to react to pain." (*Id.* at 30830.) This Court, however, interpreted that testimony and the answer to the poorly articulated

question that preceded it to mean that depressing the consciousness would depress the pain experienced. *See In re Ohio Execution Protocol Litig. (Phillips, Tibbetts, & Otte)*, No. 2:11-cv-1016, 235 F. Supp. 3d 892, 920 (S.D. Ohio Jan. 26, 2017). That misinterpreted Dr. Bergese's clarification by focusing on the patient feeling pain if the consciousness was not depressed enough, when Dr. Bergese's key point was that the person is "going to react to pain" if the consciousness is not sufficient suppressed; that reaction, not the sensation, is what unconsciousness affects. The whole of Dr. Bergese's testimony clarifies his consistent belief that consciousness and sensation are two different concepts, and reducing consciousness does not cause insensation. Any testimony that appears to read to the contrary was most likely the result of imprecise language, attributable to poorly worded questioning or Dr. Bergese's efforts to explain complex scientific concepts getting lost in translation from his native Spanish to English.

For instance, Dr. Bergese repeatedly and specifically tied together the concepts of consciousness and voluntary movements when he said reaction to pain is a matter of consciousness. (*See, e.g.*, Hr'g Tr., ECF No. 923, PageID 30851:7–22; PageID 30855 (evidence an inmate was opening and closing his fists was significant to assessing consciousness because "I am seeing something that is telling me that the brain is working to the point that the inmate can do purposeful movement"). But that has been incorrectly interpreted to mean that one who is sufficiently unconscious as to be unable to move is not in pain. Not so. Dr. Bergese further distinguished between

consciousness and sensation when, upon being asked whether the presence of an opioid in the McGuire execution protocol affected his expert conclusion about whether McGuire was in pain or not, Dr. Bergese clarified and limited his answer not to pain but to consciousness. (*Id.* at 30855–56.) Likewise, he distinguished between the two concepts when he testified about the dangers of administering the paralytic drug too quickly: "I think you got to be very sure that the patient's insensate – you have got to be very sure that the inmate in this case is unconscious." (*Id.* at PageID 30863.) He also made it a point of emphasis during his testimony to clarify that a Bispectral Index monitor (BIS) is used to measure a subject's level of sedation, and that it can measure awareness, but that it "has nothing to do with pain." (*Id.* at PageID 30823–25.)

Critically, consciousness and sensation are not in a one-to-one relationship. Rather, although consciousness usually implies sensation (hence expert testimony framed through that lens), the reverse is not true. That is, in the absence of a pain-blocking drug, if one is conscious, one remains sensate; but even if one is unconscious, so as to be unable to communicate through word or deed, or if one is paralyzed and thus unable to move, that person would still remain sensate (again, in the absence of a pain-blocking drug). Dr. Bergese noted this concept when he explained that someone "who speak[s] will feel pain for sure . . . unless you give opioids." (*Id.* at PageID 30855.) In that example, the person is deemed conscious because he can speak. Independent of that stage of consciousness, he will feel pain unless given a pain-blocking drug. And that remains true, even if the consciousness is so suppressed as to

prevent the person from communicating that he is in pain, because sensation and consciousness are two distinct concepts. (*See, e.g.*, Bergese Expert Report, ECF No. 985–1, PageID 37142–43, ¶ 81–84; PageID 37144–45, ¶ 87; PageID 37162–64, ¶¶ 110–13 & n.33.)

The first part of that same fundamental principle—that sensation typically accompanies consciousness in the absence of a pain-blocking drug, but sensation will remain present even with unconsciousness in the absence of a pain blocker—is found in Dr. Bergese's ultimate opinion: midazolam has no analgesic properties, and thus in his view, evidence from executions using midazolam demonstrates that "[t]hose patients have [a] high degree of consciousness, so I will say probably [midazolam] is not a good drug" for protecting the inmates against the pain of the second and third drugs. (*Id.* at PageID 30865.) Dr. Bergese further summarized that someone "who is able to speak . . . [and/or who] is able to have purposeful movement . . . [is] conscious enough to suffer through the process." (*Id.*) In short, although sensation and consciousness are two distinct concepts, Dr. Bergese's conclusions were predicated on the understanding that evidence from midazolam executions demonstrated consciousness and, absent a pain-blocking agent, inmates who were conscious were still sensate.

Dr. Sinha offered consistent testimony. He explained that consciousness and "sensation, response to pain" are two separate concepts. (Hr'g Tr., ECF No. 1363, PageID 51536–37.) As he explained, consciousness is assessed on a spectrum, but "it's sensation that's binary. I mean, either the person's going to

feel it or not feel it." (*Id.* at PageID 51537.) He further confirmed sensation is a "separate and independent consideration from whether the person is conscious or unconscious." (*Id.*) Dr. Sinha also testified that regardless of whether 500 mg or more of midazolam could take a person from being fully conscious to unconscious at the level of General Anesthesia, the drug cannot, at any dose, induce the *insensation* aspect of General Anesthesia because "it's not an analgesic." (*Id.* at 51539–40.) Similarly, Dr. Sinha testified that a person can be conscious and aware, and yet insensate to pain if given an analgesic. (*Id.* at PageID 51541–42.) He also testified that a person can be unconscious and aware and yet still sensate to pain, particularly when the pain in question is severe. (*Id.* at 51542.) Dr. Sinha further testified that one who is sedated with 500 mg of midazolam would not be sufficiently conscious to respond to various stimuli (including the types of stimuli in Defendants' "consciousness checks," but still sensate to pain. (*Id.* at PageID 51543–45.) And he then reiterated that, although you would "need both [fully unconscious and insensate] if you want not to have them [experience] pain," the biggest question is not whether the inmate is fully conscious or unconscious, but whether he is still sensate to severe pain. (*Id.* at PageID 51544–44.) (*See also* Sinha's Corrected Report, ECF No. 1295-1, ¶ 18–19.)

The Sixth Circuit, like this Court, has already accepted that the pain associated with the second and third drugs is severe if not abated. And the pain and suffering associated with the pulmonary edema or the burning from a large volume of highly acidic midazolam injected intravenously to which

Henness will be exposed is similarly severe if not abated. Thus, as a matter of core scientific principle, if the inmate is not protected from sensation via a true pain-blocking drug—if he is not made insensate—then he will be very likely to feel the severe pain associated with the execution drugs. Indeed, he will surely feel that severe pain.

In sum, the courts' focus on consciousness is scientifically flawed in this context; the "relevant question" must be reformulated to focus on the true issue—sensation. Notably, the Sixth Circuit at another part of *Fears* articulated a scientifically accurate inquiry, expressly drawn from *Glossip*'s analysis. That court stated: "the relevant question is . . . whether, once [the midazolam's maximum sedative effect, *i.e.*, the ceiling effect] arrives, an inmate is sure or very likely to experience serious pain from the [protocol's] drugs." *Fears*, 860 F.3d at 888. And the answer is "yes"; as a matter of overwhelming scientific consensus, midazolam is not and can never be a pain-blocking drug, at any dosage. (*See* Dr. Bergese Expert Report, ECF No. 985, PageID 37121–22, ¶¶ 21, 23; PageID 37135, ¶ 60; PageID 37162, ¶ 110 & n.33; PageID 37163, ¶ 112; Dr. Sinha Corrected Expert Report, ECF No. 1295-1, PageID 47328, ¶ 10; PageID 47331–32, ¶ 18; PageID 47334–35, ¶ 22; PageID 47351, ¶ 60; Dr. Stevens Rebuttal Report, ECF No. 1331-1, PageID 49221, ¶ A.2; PageID 49229, ¶ 29.) In fact, this Court has already accepted that as fact. *Campbell & Tibbetts*, 2017 U.S. Dist. LEXIS 182406, *56 (crediting Dr. Stevens's testimony that midazolam has no analgesic properties, and rejecting Dr. Antognini's opinion to the contrary). Accordingly, even once the maximum

sedative effect of IV-injected 500 mg of midazolam is reached, the inmate will remain *sensate* to severe pain, regardless of his level of consciousness or ability to respond to the "consciousness checks." (*See* Dr. Bergese Expert Report, ECF No. 985, PageID 37129, ¶ 42–43 ("In the absence of analgesia, however, the body's pain receptors continue to function normally, generating and transmitting electrical pain signals to the brain."); *see also, e.g.*, *id.* at PageID 37134, ¶ 56 ("Potassium chloride will activate pain receptors in an inmate's venous system and cause pain as the drug passes through the inmate's veins.").) And that means he will, as a matter of scientific fact, surely (and, at the very least, very likely) experience the serious pain from the execution protocol's drugs.[5]

[5] This Court's analysis is also scientifically flawed for another reason if measured against the Sixth Circuit's articulation of the relevant question. That court expressly tied the inquiry to the inmate being "conscious enough to feel the pain from the [protocol] drugs." *Fears*, 860 F.3d at 886; *Campbell*, 881 F.3d at 450. The severity of that pain is sufficiently great enough to be unconstitutional if experienced. But this Court used the (significantly less painful) "consciousness checks" stimuli as the constitutional benchmark to be met for protecting the inmate, not the much more severe pain associated with the protocol drugs. *See In re Ohio Execution Protocol Litig. (Campbell & Tibbetts)*, No. 2:11-cv-1016, 2017 U.S. Dist. LEXIS 182406, *56 (S.D. Ohio Nov. 3, 2017) (finding significance that the "dose of midazolam in use here, a multiple of the highest recommended clinical dose, appears to be *sufficient to suppress consciousness to the extent that an inmate will not respond to the consciousness checks* used by emergency medical technicians and used by Ohio" (emphasis added)).

3. Sensation is binary, and must be eliminated to protect the inmate from the undisputedly severe pain and suffering associated with the protocol drugs.

This Court articulated the scientifically correct inquiry in its conclusion in *Campbell & Tibbetts*: "Plaintiffs have not proven that injection of the second and third drugs in Ohio's [protocol] will cause them to experience severe pain when midazolam at 500 mg. is the initial dose." *Campbell & Tibbetts*, 2017 U.S. Dist. LEXIS 182406, *58. By omitting any mention of "consciousness," the Court expressed the accurate scientific standard.

But the Court erred scientifically in its application of that standard, based on a scientifically incorrect understanding of sensation. That misunderstanding is most vividly demonstrated in the Court's assertion that "the fact that [an inmate] was not insensate to pain does not prove he was experiencing pain or what level of pain he was experiencing." 2017 U.S. Dist. LEXIS 182406, *53. The Sixth Circuit embraced that statement too. *Campbell*, 881 F.3d at 452. Relatedly, this Court expressed on several instances the notion that "rendering a subject completely insensate to pain[] is not constitutionally required." 2017 U.S. Dist. LEXIS 182406, *58; *see also id.* at *55 (stating "the Eighth Amendment does not require General Anesthesia before an execution"). The Sixth Circuit expressed the same. *See Campbell*, 881 F.3d at 452, 453. The Supreme Court has said an execution need not be "pain-free" to be constitutional, the theory goes, and so the inmate need not be insensate to be sufficiently protected against the severe pain from the drugs.

Even if the general acceptance of some degree of pain in an execution sets the broader contours of this specific Eighth Amendment discussion, however, that general principle finds no place here. This Court's view that there is no constitutional requirement to be made insensate (as in General Anesthesia) is illogical and cannot be reconciled with a correct scientific understanding of sensation, and the demonstrated severe pain and suffering associated with the drugs Defendants have chosen to use.

At least as to Ohio's execution protocol choices, the inmate must be made insensate to *all* pain to be protected from *any* of the indisputably severe pain and suffering associated with the protocol drugs. The binary alternative in the absence of insensation is the inmate *will be* subjected to that unconstitutionally severe pain and suffering. So the general principle of permitting "some pain" in executions may apply to matters like routine insertion and maintenance of a peripheral IV catheter, for example, or if the drugs in question were not so severely painful. But that general principle cannot, as a matter of basic scientific fact, be properly applied in this specific context due to the pain associated with the drugs in Defendants' current execution protocol.

Sensation, as a matter of fundamental science, is binary; one is either sensate or insensate. *See Campbell & Tibbetts*, 2017 U.S. Dist. LEXIS 182406, *38 (noting Dr. Sinha's testimony). (*See also* Hr'g Tr., ECF No. 1363, PageID 51536 ("[W]hether you feel pain or not is also binary. Either you are under general anesthetic, you have an analgesic [or not]."); Dr. Sinha Expert Report,

ECF No. 1295, PageID 47331–32, ¶ 18.) If the inmate remains sensate during a lethal injection execution, then he will feel the full scope of any painful stimuli. If he is insensate, then he will not feel the pain. But in the absence of a pain-blocking drug, sensation of pain is all or none.

The level of severity of the pain depends on the nature of the stimulus, not whether a person is conscious or somewhere on the sedation spectrum. The Sixth Circuit has accepted, and Defendants do not truly dispute, that the pain associated with the second and third drugs in Ohio's protocol is severe. *See Campbell*, 881 F.3d at 450 (explaining that the "physical pain alone [associated with the second and third drugs] was already serious enough" to be unconstitutional under *Glossip*).

Applying these principles reveals the scientific flaw in the courts' analysis. In the first part of this Court's statement, this Court asserted that "the fact that [an inmate] was not insensate to pain does not prove he was experiencing pain . . . ." But that cannot be squared with the science involved. It is an established fact that there is severe pain and suffering associated with the drugs in Defendants' protocol. Again, as a matter of basic science, when the inmate is not insensate, he will be sensate. And because there is no analgesic drug involved in Defendants' protocol, the inmate will be sensate when Defendants administer the execution protocol to him. Thus, as a matter of basic scientific proof, he will, indeed, experience severe pain and suffering associated with the protocol drugs during the execution.

In the second part of that sentence, the Court stated that "the fact that [an inmate] was not insensate to pain does not prove . . . what level of pain he was experiencing." But it is indisputable at this point that the pain and suffering associated with the second and third drugs is unconstitutionally severe. As a matter of fundamental scientific principle, if the inmate remains sensate, he will therefore experience the full severity of the pain associated with the execution drugs. That level is sufficient to be unconstitutionally painful.

The only way the inmate will *not* be sensate to the full severity of the pain is if he is made insensate with a pain-blocking drug. Or, stated differently, in the absence of a sufficient amount of a pain-blocking drug that will make him insensate, the inmate will experience the unconstitutionally severe pain associated with the protocol drugs.

Accordingly, there *must* be a constitutional requirement to be insensate to the pain *from the execution drugs in Ohio's protocol*; the Supreme Court's observation that some amount of pain is tolerable in an execution must be understood in the context in which it was made. *See Baze*, 553 U.S. at 50–52. *Baze* addressed IV maladministration problems; some amount of pain from insertion of the IVs was acceptable to the Court as a necessary part of carrying out a peripheral IV-administered lethal injection. But here, when the genesis of the pain is not IV insertions but the drugs themselves, and those drugs are indisputably, unconstitutionally painful if the inmate remains sensate, then there can only be one conclusion from a valid scientific perspective—the inmate must be successfully rendered insensate to the severe pain in question. In the

absence of a sufficient amount of a pain-blocking drug, the inmate will remain sensate to the severe pain associated with the drugs. It necessarily follows as a matter of scientific fact that if Henness can demonstrate that Defendants do not administer a sufficient amount of a pain-blocking drug, then he will have also demonstrated that he is sure (and very likely) to experience the severe pain associated with the execution protocol drugs. And, as explained in other sections that follow, Defendants do not administer any amount of any pain-blocking drug as part of their execution protocol.

Consequently, this Court must re-evaluate its prior assertion that "the fact that [an inmate] was not insensate to pain does not prove he was experiencing pain or what level of pain he was experiencing."

In sum, it is well-established at this point that subjecting an inmate to the severe pain and suffering associated with Ohio's execution protocol drugs is unconstitutional, and Henness will further establish that IV-injected high doses of midazolam also causes unconstitutionally severe pain and suffering. But sensation is binary, such that Henness will either feel none of the pain or all of it. He cannot constitutionally be exposed to that pain. Because sensation is binary, therefore, he must logically be protected from *all* of that pain as a constitutional requirement. In the absence of a pain-blocking drug, Henness will remain sensate to the severe pain and suffering associated with the protocol drugs. But midazolam at any dose is not a pain-blocking drug, nor is any other such drug administered. Thus, Henness will have, indeed, "proven that injection of the second and third drugs in Ohio's [protocol] will

cause [him] to experience severe pain when midazolam at 500 mg. is the initial dose." *Campbell & Tibbetts*, 2017 U.S. Dist. LEXIS 182406, *58. The Court's contrary understanding must be re-evaluated.

4. A clinical study of 500 mg of midazolam is not necessary to reach a scientifically valid conclusion that it does not protect the condemned inmate from the severe pain and suffering associated with the drugs in Defendants' protocol.

The Supreme Court confirmed in *Baze* that in a three-drug execution protocol with a paralytic as the second drug and potassium chloride as the third drug, the first drug must protect the inmate from the severe pain and suffering associated with those second and third drugs. Defendants rely on 500 milligrams of IV-injected midazolam to protect Henness and others from that severe pain and suffering.

The Sixth Circuit and this Court faulted previous Plaintiffs in this case for not presenting clinical studies about the effects of 500 mg doses of midazolam and whether such a large dose can block serious pain. *See Campbell*, 881 F.3d at 452–53. But from a scientific perspective, clinical studies of 500 mg doses of IV-injected midazolam are not necessary to conclude, as a matter of scientific certainty rather than speculation, that such doses do not render a person insensate to severe pain and suffering or otherwise work as Defendants claim.

First, there is a well-established scientific general consensus that midazolam simply lacks the pharmacological properties to be a true analgesic drug, regardless of the dose. It is not and cannot be a pain-blocking drug, a

principle to which other experts in this case have previously testified and which this Court accepted, expressly rejecting Defendants' expert's opinion to the contrary. *Campbell & Tibbetts*, 2017 U.S. Dist. LEXIS 182406, at *56. . Henness will present further expert evidence on this point, including arguably the nation's foremost expert in midazolam.

Second, there are studies involving large overdoses of other benzodiazepines that confirm what 500 mg of midazolam can—and cannot—do as a scientifically valid conclusion. Those studies involve drugs that have the same general properties as midazolam. And a 500 mg dose of midazolam is approximately 10-20 times greater than the usual therapeutic dose, whereas those studies involve some benzodiazepine overdoses of an even greater magnitude. The studies confirm that massive benzodiazepine overdoses do not, alone, eliminate the respiratory drive as Defendants' expert Dr. Antognini posits, nor sufficiently sedate the subjects as to be completely unarousable. The conclusions drawn from such studies can satisfy the Scientific Method for reaching scientifically valid conclusions on 500 mg of IV-injected midazolam.

And third, even if the sedative effect of midazolam could somehow transform into an analgesic property at higher doses as Defendants argue, the only question would be whether there is a different effect of midazolam at 500 mg than at lower, clinical doses for which there is literature showing no analgesic effect. But that question can be answered by studies demonstrating there is no further EEG effect beyond those of a 25-30 mg dose of midazolam. So when there is no greater effect from midazolam beyond 30 milligrams, it can

be stated with scientific accuracy that there is no analgesic effect of 500 milligrams, nor even any greater sedative effect at that dose than at lower doses.

Finally, as a legal matter, insisting on scientific studies of 500 mg of midazolam contravenes the Supreme Court's analysis confirming it is unnecessary to present such studies to draw conclusions about the drug's use in lethal injection protocols. In *Glossip*, the State's expert, Dr. Evans, offered testimony about IV midazolam's effects at 500 mg based on extrapolations from studies done about much lower therapeutic doses of midazolam. "But because a 500-milligram dose is never administered for a therapeutic purpose, extrapolation was reasonable," the Court explained. *Glossip*, 135 S. Ct. at 2741.

Accordingly, this Court and the Sixth Circuit's suggestion that an inmate cannot satisfy his *Glossip* burden without clinical studies of 500 mg of midazolam must be re-evaluated.

5. There is no need for a court to adopt any particular degree of unconsciousness as constitutionally required in a lethal injection execution, nor to define consciousness differently in the execution context than the medical context, because sensation is the critical inquiry, not consciousness.

This Court's focus on consciousness, rather than sensation, manifested in the following observation in *Otte*:

> 'Consciousness' is not a term of art in medicine or capital punishment law. Neither the Supreme Court nor the Sixth Circuit has defined the term in any way that relates it to the medical use of the term in the expert testimony this Court has heard. And neither court has adopted any particular degree of unconsciousness as constitutionally required in a lethal injection execution.

Otte, 2017 U.S. Dist. LEXIS 145432, at *43. The Court reiterated that belief in *Campbell & Tibbetts*. 2017 U.S. Dist. LEXIS 182406, *38–39. Curiously, the Court quoted a section of *Miller's Anesthesia* that makes Henness's point plain: "'An individual may fully experience a stimulus . . . but not be *able to respond*.'" *Id.* (citing Miller's Anesthesia, 8th ed. 2015 at p. 283) (emphasis added).

But there is no need for any court to adopt a particular degree of unconsciousness as constitutionally required in a lethal injection context, because consciousness is not the critical point, as explained in Section III.A.2 above. As Dr. Bergese testified, "[y]ou can have unconsciousness and you can have pain." (Hr'r Tr., ECF No. 923, PageID 30820–21.) Accordingly, this Court's observation must also be re-evaluated.

6. Evidence from executions continues to accrue, demonstrating that inmates remain sensate to pain following administration of midazolam; inmates demonstrating sensation is the rule, not the exception, and the Court erred as a scientific matter by rejecting such evidence as merely cumulative.

At some point, the courts can no longer explain away the ever-growing mountain of evidence that people executed using a lethal injection protocol that includes IV-injected midazolam remain sensate to pain and are, consequently, suffering horrifically as they die. The Sixth Circuit waived away evidence from the execution of Ronald Smith in Alabama by observing that "[s]ome people react different to drugs than other people do," and suggesting that "the amount of movement reported in Smith's execution appears to be the exception, not the rule, for executions with the three-drug protocol." *Fears*, 860 F.3d at 890. But Henness will present evidence showing over 85% of inmates for whom an autopsy report exists suffering acute pulmonary edema with IV-injected midazolam protocols. And he will present additional evidence from executions that, experts will explain, establishes that those inmates remained sensate even after injection of midazolam.[6]

Those consistent accounts of executions are not "some people reacting differently than others." There are, instead, consistent accounts of virtually all the executions involving IV-injected midazolam that were not artificially obscured. And the movements of inmates being executed, re-evaluated in the

[6] *See, e.g.*, Steven Hale, The Execution of Billy Ray Irick, The Nashville Scene (Aug. 10, 2018), https://www.nashvillescene.com/news/pith-in-the-wind/article/21017550/the-execution-of-billy-ray-irick.

proper light and considered along with new and additional eyewitness execution evidence and the forensic evidence of acute pulmonary edema, are consistent, regular, and highly troubling; they are the rule, not the exception. Indeed, consistent evidence continues to accrue with virtually every execution involving midazolam. That fact alone warrants re-evaluation of the courts' previous beliefs.

In sum, the *Fears* court's statement that movements in Smith are the "exception, not the rule," must be re-evaluated in light of continued execution evidence. It should also be re-evaluated in light of further scientific evidence that will establish the smaller inmate movements disregarded by the Sixth Circuit are, indeed, demonstrative of those inmates remaining sensate and experiencing severe pain and suffering from pulmonary edema and the remaining drugs in the three-drug protocols.

This Court, for its part, has disregarded similar evidence from additional executions as being merely "cumulative" of the evidence the Sixth Circuit considered. *Campbell & Tibbetts*, 2017 U.S. Dist. LEXIS 182406, at *49; *Campbell*, 881 F.3d at 451–52 (recounting this Court's characterization of the evidence). Similarly, it disregarded similar evidence as "only marginally different from other observations . . . in other executions" that are already on record in this case. *Campbell & Tibbetts*, 2017 U.S. Dist. LEXIS 182406, at *49. It also reasoned that the "law of the case is thus that the type of behavior of a person who has been injected with midazolam reported [during the Otte execution] is not sufficient to warrant preliminary injunctive relief." *In re Ohio*

Execution Protocol Litig. (Otte), No. 2:11-cv-1016, 2017 U.S. Dist. LEXIS 15630, *28 (S.D. Ohio Sept. 16, 2017).

But the basic belief at the heart of those three statements—that further evidence similar to other execution eyewitness accounts has no significance—contravenes basic scientific principles, starting with the Scientific Method. It ignores the scientific significance of additional data, particularly when that new data confirms previously gathered data. And new scientific evidence is especially significant when the conclusions regarding the first set of data were predicated on the (incorrect) belief that the earlier data was an isolated example (*i.e.*, the exception, not the rule). The Sixth Circuit rejected any significance to the previous evidence because, it believed, that evidence was limited in quantity. Thus, this Court should not discard as meaningless additional, consistent evidence because it is consistent. To the contrary, in fact; such evidence must prompt re-evaluation of the previous conclusions. Indeed, how else but with additional, consistent data can one prove that a particular data point is in fact the rule, not the exception?

The process of science not only tolerates duplicative results, but demands them. The Scientific Method is not satisfied by a single study or the work of a lone researcher. Rather, "[s]cience is a cumulative enterprise in which each scientist builds on the work of others." *Solarex Corp. v. Arco Solar, Inc.*, 121 F.R.D. 163, 171 (E.D.N.Y. 1988), *aff'd*, 870 F.2d 642 (Fed. Cir. 1989). Indeed, "[s]cientific knowledge tends to be cumulative and progressive, and a hypothesis that is not consistent with accepted theories should be regarded

with great caution." *In re TMI Litig. Cases Consol. II*, 911 F. Supp. 775, 787 (M.D. Pa. 1996), *aff'd sub nom. In re TMI Litig.*, 193 F.3d 613 (3d Cir. 1999), *amended*, 199 F.3d 158 (3d Cir. 2000). "Good science" must be both reliable and relevant, *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 589 (1993), meaning specifically that the method must "produce consistent results," *id.* at 590 n.9. Sound scientific methodology amounts to "deriving a thesis logically from confirming evidence," especially when it can be shown that each expert's methods and conclusions "are strikingly similar." *Dyson v. Winfield*, 113 F. Supp. 2d 44, 51 (D.D.C. 2000). In short, expert opinion based on "scientific technique" is admissible only insofar as it is "generally accepted" and "reliable" in the scientific community; evidence that establishes this consensus is not cumulative, as this Court suggested, but in fact the bedrock foundation for good science. *Daubert*, 509 U.S. at 589–90.

Additionally, this Court seemingly invoked the notion of "cumulative evidence" as often used to reject ineffective-assistance-of-counsel claims in the habeas corpus context. But that doctrine has no place here when the matter at hand involves questions of science. When an inmate produces to the Court "cumulative" evidence from other executions, such evidence necessarily requires, as a fundamental scientific principle, re-evaluation of the previously considered evidence and conclusions that flowed therefrom. After all, scientific studies that produce the same or similar results as a previous study are not irrelevant to demonstrating the question at the heart of the study; they are not cast aside as "cumulative" of the earlier study. To the contrary, in fact, as

noted above; as a fundamental aspect of the Scientific Method, subsequent results that are consistent with the earlier evidence further validates the earlier study's conclusions. And when those results are replicated again and again, it can change a hypothesis into a scientific consensus.

Here, Henness will present additional eyewitness execution evidence as well as forensic pathology evidence; that evidence is both new and yet consistent with evidence already in the record in this case. And he will also present evidence to demonstrate that the evidence previously characterized and rejected as "cumulative" must be re-evaluated. Henness will show the scientific consensus cuts in his favor.

Moreover, as a legal matter, this Court erred by invoking the law of the case doctrine to disregard additional, consistent evidence (and newly observed evidence that supports the inmates' arguments about midazolam). That legal doctrine does not preclude meaningful re-evaluation and consideration of all the evidence about executions using IV-injected midazolam, contrary to this Court's statement in *Otte*. First, even if the Sixth Circuit's decision in *Fears* (reached in an injunctive relief posture, not a full merits posture with an accordant final judgment) is interpreted as a rule of law, it was a rule predicated on a determination of fact, namely the court's factual assessment of the record evidence at that time. Thus, it must be subject to change as new facts develop and change the factual landscape. Second, the Sixth Circuit itself has explained that new evidence presents precisely the type of situation in which following the law of the case may be inappropriate. *Howe v. City of*

Akron, 801 F.3d 718, 741 (6th Cir. 2015). In the *Otte* emergency TRO litigation, and again in the *Campbell & Tibbetts* injunctive relief proceedings, those inmates produced new evidence. The courts fundamentally erred as a matter of science and law by rejecting any significance to that evidence on the basis that it was "cumulative" or "similar" to other evidence previously presented in this case.

Finally, this Court also erred as a matter of science when it seemingly cast doubt on the veracity of execution witness accounts simply because those accounts came from attorneys or legal staff who had previously represented the executed inmate. *Campbell & Tibbetts*, 2017 U.S. Dist. LEXIS 182406, at *49 n. 19. This Court stated that "perspective always colors observation and confirmation bias is a well-established phenomenon." *Id.* But the Court provided no reasoned basis to accuse the witnesses of having "colored observations" when they were merely recounting that which they observed.

Confirmation bias is the phenomenon by which people observe or interpret new evidence in a way that confirms their existing beliefs. *See generally*, Raymond S. Nickerson, Confirmation Bias: A Ubiquitous Phenomenon in Many Guises, Rev. of Gen. Psychology, 1998, Vol. 2, No. 2, 175–220.[7] But the execution lay witnesses were not asked to interpret what they observed (at least by Plaintiffs' counsel), only to describe it. Nor did many of them have a preconceived idea of what they might see; accordingly, many

[7] Available at http://psy2.ucsd.edu/~mckenzie/nickersonConfirmationBias.pdf.

had no preconceived idea of what observations would or could confirm their (non)existing beliefs. Indeed, some of the observations were even more notable because they were surprising to the witness. (*See, e.g.*, Santino Coleman, Hr'g Tr., ECF No. 1360, PageID 51154 (describing inmate McNabb's sudden movements during execution as having "caught me off guard"); Christine Freeman, Hr'g Tr., ECF No. 1360, PageID 51174 (describing being surprised and "shocked" by inmate's "completely unexpected" movements); Spencer Hahn, Hr'g Tr., ECF No. 922, PageID 30653–54 (explaining that [t]his was major movements I wasn't expecting to see"). Other observations were notable because of steps the witness took to *prevent* relying on expectations in an effort to accurately describe what was seen. (*See, e.g.*, Spencer Hahn, Hr'g Tr., ECF No. 922, PageID 30621:14–25.) Furthermore, their descriptions were thorough and comprehensive, not limited to just those observations that support the challengers' legal arguments. So those eyewitness accounts cannot, as a scientific matter, be reasonably accused of confirmation bias.[8]

Conversely, the Court seemingly ignored the tremendous likelihood of confirmation bias in Defendants' recounting of what transpired during the McGuire, Phillips, and Otte executions. From a legal standpoint, Defendants have a vested interest in the fiction that their execution protocols using IV-

[8] On the other hand, in order to fairly and objectively consider or re-evaluate Henness's evidence and arguments here, the courts must overcome related phenomena such as the explanation effect (the notion that people are more apt to persist in their beliefs, despite contradictory evidence, once they have written their beliefs down), and belief perseverance (the concept of maintaining a belief despite new information that contradicts it).

injected midazolam are not subjecting the inmates to severe pain and suffering. Indeed, from a human perspective, it is understandable that confirmation bias infects Defendants' testimony; mentally accepting the alternative would be monstrously dehumanizing. So Defendants minimize, downplay, justify, try to explain, or deny what occurred, and they interpret that evidence in a way that suits their own fiction, such as when they claim that nothing out of the ordinary occurred during the McGuire execution or that Otte was not, in fact, tearing. *See Campbell*, 881 F.3d at 451 n.1; *Campbell & Tibbett*s, 2017 U.S. Dist. LEXIS 182406, at *51 ("ODRC staff who were present saw one tear or maybe only a 'wetness' or 'moisture' at the corner of the left eye."). Their testimony should be considered (and discounted) accordingly.

7. The movements and other observations described in previous executions are scientifically relevant and demonstrate that the inmates remained sensate, and quite likely conscious and aware after injection of the protocol drugs.

This Court and the Sixth Circuit disregarded evidence from prior executions that was scientifically relevant to demonstrating the condemned inmate remained sensate. But regardless of whether it was scientifically proper to disregard evidence from the Lockett and Wood executions in previous challenges, the science at issue with Henness's claim makes those executions relevant once again. Specifically as to whether Henness is sure or very likely to suffer the severe pain and suffering from pulmonary edema, the critical issue is whether a large dose of midazolam was injected intravenously, followed by acute pulmonary edema. The evidence demonstrates that both men were

intravenously injected with doses of midazolam several times a normal/clinical dose. Autopsy results confirmed acute pulmonary edema in both men, and eyewitness descriptions recounted actions consistent with the men suffering the terrifying sensations of acute pulmonary edema. Whether other drugs were involved does not matter. Nor does the question of precisely how much midazolam Lockett received intravenously—the autopsy results confirm he received enough. Those two factors distinguish the relevance of those executions to Henness's claim from the Supreme Court's reasoning in *Glossip*.

Additionally, the *Fears* court disregarded movements such as eyes opening, head movements, and foot movements. But none of those were considered in the context of demonstrating the inmate was experiencing acute pulmonary edema. Accordingly, that evidence must be re-evaluated as well.

8. The fact that Otte was not insensate to the severe pain associated with the drugs in Defendants' protocol proves he was experiencing severe pain.

This Court must also re-evaluate the evidence (and its analysis of that evidence) from Otte's execution. This Court and the Sixth Circuit misconstrued the evidence of Otte's tearing, and misinterpreted its significance. This Court rejected any significance in the evidence from Otte's execution, including evidence that showed Otte remained conscious, aware, and sensate after injection of the protocol drugs. The Court reasoned that "the fact that he was not insensate to pain does not prove he was experiencing pain or what level of pain he was experiencing." *Campbell & Tibbetts*, 2017 U.S. Dist. LEXIS 182406, *53. But that is incorrect as a matter of science. The tearing was

demonstrable proof that Otte remained conscious, aware, and (most critically) sensate after the midazolam injection, even if he was not sufficiently conscious to respond to the "consciousness checks." And that fact meant that he was subjected to the full brunt of the severe pain and suffering associated with the drugs in Defendants' protocol.

If Otte was not insensate to pain, then he was, as a scientific conclusion, sensate to it, thus proving by definition that he experienced the pain. And because there was no pain-blocking drug administered at any time during his execution, it is also a scientific fact that Otte remained sensate to pain throughout the entire time. Finally, because we know that the pain associated with the drug in Defendants' execution protocol is indisputably severe, the fact that Otte remained sensate to that pain also proves that he experienced severe pain and suffering associated with those drugs.

This Court misconstrued Dr. Sinha's testimony regarding Otte's tearing, rejecting it as failing to "prove the tears were produced by severe pain." *Campbell & Tibbetts*, 2017 U.S. Dist. LEXIS 182406, at *54. Consequently, this Court misinterpreted the groundbreaking significance of that evidence. Dr. Sinha testified that the tears were concrete evidence that Otte remained conscious, aware, and sensate at the time he produced the tears during his execution, after injection of midazolam. He also testified he had not seen active tear production in the last 10,000 (or more) anesthetic cases in which he had been involved.

But the Court misinterpreted both of those aspects of Dr. Sinha's testimony. First, Dr. Sinha did not state, as the Court seemingly believed, that he had *never* seen active tearing during an anesthesia procedure and thus would not know what that meant. Rather, Dr. Sinha stated that active tearing had not manifested in "the last 10,000" cases in which he was involved, as a way of simultaneously showing (1) his extensive experience and (2) the rarity that makes lacrimation notable as a sign of insufficient anesthesia for a practitioner. Second, Dr. Sinha did not testify that the tears were *produced* by or as a result of pain, as the Court stated.[9] Instead, he testified that the tears were concrete evidence that Otte remained sensate (and conscious and aware) at the time Defendants injected him with the second and third drugs (*see* Corrected Expert Report, ECF No. 1295-1, ¶ 32–33), because one who is unconscious, unaware, and insensate does not produce tears (*id.* at ¶¶ 29–30). And *that* fact, combined with the established fact that the second and third drugs in Ohio's protocol cause severe pain and suffering (*see id.* at ¶ 34), meant that Otte, as a scientific matter, necessarily experienced severe pain and suffering associated with the protocol drugs during his execution. (*See id.* at ¶¶ 64–67.)

[9] If the Court reached that erroneous interpretation based on arguments offered by counsel for Campbell or Tibbetts (*see, e.g.*, *Campbell & Tibbetts*, 2017 U.S. Dist. LEXIS 182406, at *52 (quoting Plaintiffs' Written Closing Arguments, ECF No. 1355, PageID 50452)), Henness expressly disavows any such argument.

Put differently, Dr. Sinha did not testify that Otte cried *because he was in severe pain*, as this Court suggested. Rather, he testified to what those tears necessarily proved as a scientific and logical matter of fact: that Otte remained sensate (and conscious) and thus experienced the severe pain and suffering associated with the second and third drugs in Ohio's protocol. Interpreted properly, that was significant new evidence about the dangers of Defendants' protocol, so this Court's assessment of the evidence (and the Sixth Circuit's reliance on that assessment, *see Campbell*, 881 F.3d at 452), must be re-evaluated. That is, Otte's tearing is scientific proof that he suffered severe pain during his execution; whether he produced tears *because* he was in severe pain is beside the point.

9. Medical concepts are directly applicable to assessing the science involved with midazolam as used in Defendants' protocol, not a basis on which to reject expert scientific testimony.

Grafting medical concepts and terminology onto the lethal injection context has proven a thorny task. For instance, this Court erroneously rejected expert testimony because it came from persons who were medically trained, or who discussed what the proper course of treatment in a typical medical care context would be. *See Campbell & Tibbetts*, 2017 U.S. Dist. LEXIS 182406, at *54–56. The Court found expert testimony less credible because those experts applied science to the subject matter at hand, in part based on their experience as health care providers. *Id.* But the properties of the drugs involved don't know the distinction between an operating room and a Death Chamber. Their pharmacology and their functioning remains the same,

regardless of the context. The science of the drugs, like the levels of sensation, consciousness, or awareness associated with the drugs, remains the same, regardless of whether in the medical treatment context or an execution. On such complex scientific matters, "it is proper to consult the medical community's opinions." *Hall v. Florida*, 134 S. Ct. 1986, 1993 (2014). Accordingly, this Court's assessment of expert testimony from medical providers must be re-evaluated.

This Court's conflicting credibility assessment of experts based on their expressed level of certainty must likewise be re-evaluated. For instance, this Court castigated Dr. Sinha and "limit[ed] the credence" it gave to his "strongly expressed conclusions" because "Dr. Sinha often gave his opinions in very absolute terms without the reserve in expression and caution in drawing conclusions usually associated with scientific opinion." *Campbell & Tibbetts*, 2017 U.S. Dist. LEXIS 182406, at *35 n.11. But that reasoning is (1) internally inconsistent with the treatment of other experts who *did* "reserve" their scientific opinions, and (2) eliminates any possibility of success for Henness or other inmates when measured against the controlling legal standard.

First, in an earlier appeal arising from this consolidated case, the Sixth Circuit found Defendants' expert's testimony *more* weighty and credible precisely *because* that expert provided his opinion as a definite, "beyond a reasonable degree of medical certainty," as opposed to the inmate's expert who qualified his opinions like this Court suggests is more appropriate for scientific opinion. *Cooey (Biros) v. Strickland*, 589 F.3d 210, 231 (6th Cir. 2009). Thus,

discounting subsequent expert witness testimony for expressing the same type of certainty which the Sixth Circuit explicitly found more credible whipsaws the Plaintiffs in this consolidated case.

Second, for Henness or other inmates to prevail on certain *Baze*/*Glossip* claims, they must establish that Defendants' execution protocol is "sure or very likely" to cause severe pain. But if that is the legal standard, Henness and other inmates must be permitted to present expert testimony to that same degree of certainty. Discounting expert testimony for being too certain, as this Court did, reveals that any possibility of an inmate prevailing on a method-of-execution challenge is illusory. That, too, must be re-evaluated.

In some respects, the courts and the parties have been imprecise in their use of medical or scientific terminology, to the great confusion of all. (*See, e.g.*, Section III.A.2 above.) Prior focus on whether midazolam can create a state of General Anesthesia was believed to be important not because of the "unconsciousness" aspect of it, but because, in the medical context, being in General Anesthesia also involves two other aspects—immobility and insensation. So, in the medical context, if there is sufficiently depressed consciousness as to be considered in a state of General Anesthesia, then is also assumed to be insensation. Not *because* of the suppressed consciousness itself, however, but because the drug or drug combinations used to put and keep someone in General Anesthesia include a pain-blocking element. Or, stated differently: if one is in General Anesthesia in the medical context, then one is, by definition, insensate (in addition to being sufficiently unconscious

and immobile) because of how anesthesia is practiced. But that is not the same as saying that making a person sufficiently unconscious as in General Anesthesia makes the person insensate *because* of that reduction in consciousness. If one remains sensate, then one is not in General Anesthesia, regardless of how unconscious he may be. (*See* Hr'g Tr., Dr. Sinha, ECF No. 1363, PageID 51540 (explaining that even if one could be taken from full consciousness to the level of unconsciousness of General Anesthesia, the person would not truly be in General Anesthesia because of the lack of analgesia).) In that way, grafting medical concepts onto the execution context has proven to be troublesome. In any event, precision dictates the focus should be on sensation as the threshold consideration, as explained above. This Court's distinction between medical concepts and the execution context must be re-evaluated in all respects.

10. It is incorrect as a matter of science for the courts to describe and rely on certain midazolam executions as having been conducted without any significant problems.

In *Glossip*, the majority found significance in the assertion that 12 executions other than those of Wood and Lockett were conducted using the three-drug midazolam protocol and "those appear to have been conducted without any significant problems." *Glossip*, 135 S. Ct. at 2746. The Sixth Circuit cited that assertion to reach its decision in *Fears* as well. 860 F.3d at 887. But regardless of whether that was accurate before, it can longer be said upon full and fair consideration of the evidence.

First, the Supreme Court referenced eleven executions in Florida that involved IV-injected 500 mg doses of midazolam. *Glossip*, 135 S. Ct. at 2746 (citing Brief for State of Florida as *Amicus Curiae* 1); *see also id.* at 2734 (citing Brief for State of Florida as *Amicus Curiae* 2–3). Those referenced Florida executions were the eleven between when Florida adopted a midazolam protocol and when the State filed its *amicus* brief on or about April 15, 2015.[10] But new forensic pathology evidence now demonstrates that the inmates suffered acute pulmonary edema in nine of those executions. There is no autopsy data for the other two. So as a matter of basic scientific fact, it can no longer be accurately said that those executions were "conducted without any significant problems." That assessment, and any reliance on it by this Court or the Sixth Circuit, must be re-evaluated

Second, the other execution to which the Supreme Court pointed as having had no significant problems was that of Charles Warner in Oklahoma. *See Glossip*, 135 S. Ct. at 2746 (citing Brief for Respondents 32). The State executed Warner with a three-drug protocol using 100 mg of IV-injected midazolam as the first drug. Notably, the State itself represented to the Supreme Court that "Warner's last words were, 'my body is on fire.'" Brief for Respondents 32 n.17, *Glossip v. Gross*, No. 14-7955 (Apr. 8, 2015). The State,

[10] Based on the State's timeline, the executions in question were those of William Happ; Darious Kimbrough; Askari Muhammad/Thomas Knight; Juan Carlos Chavez; Paul Howell; Robert Henry; Robert Hendrix; John Henry; Eddie Davis; Chadwick Banks; and Johnny Kormondy. *See* http://www.dc.state.fl.us/ci/execlist.html (last visited Sept. 27, 2018).

engaged in a battle over whether that statement demonstrated pain and suffering from the paralytic drug or potassium chloride, explained that "it is undisputed that Warner said this immediately after the administration of midazolam began and *before* injection of the second and third drugs." *Id.*

Regardless of whether that statement suggests anything about the second and third drugs, however, it must now be reassessed in light of Henness's expert evidence about the highly caustic, acidic nature of large doses of IV-injected midazolam. Warner's statement is direct evidence of the severe pain and suffering that an inmate will experience following IV-injection of midazolam at 100 mg, let alone 500 mg as Defendants intend for Henness. Warner's was not an execution "conducted without any significant problems" after all simply based on that new understanding.

Moreover, the pathology evidence further demonstrates that Warner's execution was not "without any significant problems" for another reason. He, like most of the Florida inmates executed with a midazolam protocol for whom there is available autopsy data, suffered from acute pulmonary edema during his execution.

The evidence from Warner's execution now establishes that the Supreme Court was simply wrong as a matter of science to include Warner's execution among those that "appear to have been conducted without any significant problems." That assessment, and any reliance on it by this Court or the Sixth Circuit, must be re-evaluated.

As a scientific matter, the Supreme Court was also incorrect in characterizing those executions as being conducted without any significant problems simply because there was no record evidence the inmates (other than Warner) manifested outward signs of distress or respond to the consciousness checks. An inmate's response to consciousness checks demonstrates that inmate remains sensate, conscious, and perhaps aware; but lack of response to the consciousness checks does not establish that the inmate is insensate, merely that he may be unconscious enough to not be able to respond. Lack of outward response may also result from artificial preventive measures taken by the State. It is well-established at this point that Florida binds an inmate's body and extremities very tightly before a lethal injection execution starts, thus preventing the inmate from showing any movement after injection. The evidence of lack of response to consciousness checks in those States that actively cover up or hide such evidence in that way cannot be validly considered evidence that those executions occurred without subjecting the condemned inmate to severe pain. That information was not, however, in the record before the Court in *Glossip*. Accordingly, the apparently significant evidentiary weight given to those executions must be re-evaluated for that reason as well.

Additionally, analysis of available execution autopsy evidence refutes Dr. Antognini's theory that midazolam would reduce sensations of suffocation by suppressing the drive to breathe. The Sixth Circuit in *Fears* dismissed evidence of breathing difficulties in past executions by crediting Dr. Antognini's

testimony "that midazolam, like other anesthetics, can remove the sensation of air hunger by depressing the drive to breathe." *Fears*, 860 F.3d at 889. Thus, the court explained, neither "coughing or gasping . . . demonstrates that the inmate is feeling air hunger." *Id.* But those statements must be re-evaluated in accordance with science and the execution evidence.

First, the Sixth Circuit was simply wrong as a matter of basic science to describe midazolam as an "anesthetic" drug. It is not, as the inmates' experts have explained previously and as Henness's experts will, once again, make clear.

Second, autopsy evidence demonstrates that coughing, gasping, choking, and other similar signs of the inmate struggling to breathe, are frequently occurring as inmates are suffering acute pulmonary edema. The inmates are fighting to breathe as shown by the significant number of cases in which frothy foam in the airway or other parts of the respiratory system has been identified. As Dr. Edgar will explain, that frothy foam only arises when the person is actively trying to breathe. Thus, its presence disproves Dr. Antognini's novel theory that depressing the drive to breathe eliminates the sensations of air hunger in executions. In fact, Dr. Antognini specifically identified pulmonary edema as one type of condition that would cause air hunger. (*See* Hr'g Tr., ECF No. 924, 31071–72.) Additionally, Dr. Sinha provided testimony refuting Dr. Antognini's theory that midazolam suppresses the drive to breathe. (Hr'g Tr., ECF No. 1363, PageID 51524–27; *see also*, Dr. Sinha Corrected Expert Report, ECF No. 1295, PageID 47333, ¶ 20) Accordingly, the Sixth Circuit's

statements of fact drawn from Dr. Antognini's testimony are proven incorrect, and must be re-evaluated as well.

Finally, evidence from other executions continues to confirm that the inmate reactions that were observed in earlier midazolam executions must be reassessed through the lens of those consistently observed reactions.

11. An expert need not support every conclusion or opinion offered with citation to a study.

The courts in this case previously disregarded certain expert witness conclusions for lack of citation to a study or to insufficient numbers of studies. *See Campbell & Tibbetts*, 2017 U.S. Dist. LEXIS 182406, at *57 n.20; *see also Fears*, 860 F.3d at 888 (discounting expert testimony that the protocol's second and third drugs are more painful than intubation, because "Dr. Bergese did not cite any medical evidence to support that assertion"). The courts likewise faulted inmates for not presenting scientific studies of what midazolam would do at 500 mg doses. *See, e.g.*, *Campbell*, 881 F.3d at 453.

But that approach must be re-evaluated, because it contravenes the Supreme Court's analysis in *Glossip* in which the Court confirmed an expert need not support, with citation to a study, every conclusion or opinion offered. *See* 135 S. Ct. at 2746 n.8. There, the Court rejected the principal dissent's accusation that a particular expert opinion was "entirely unsupported." Instead, the majority found "it was supported by Dr. Evans' expertise and decades of experience. And it would be unusual for an expert testifying on the stand to punctuate each sentence with citation to a medical journal." *Id.* Thus, Plaintiffs' experts, before or hence, may validly support their opinions by

their expertise and experience. Additionally, as explained in Section III.A.4 above, Plaintiffs can validly prove their scientific allegations about midazolam as used in Defendants' protocol without needing a scientific study involving 500 mg of midazolam. *See Glossip*, 135 S. Ct. at 2741 (crediting expert testimony even though it was based on extrapolation from studies on clinical doses of midazolam); *see also In re Ohio Execution Protocol Litig. (McGuire)*, No. 2:11-cv-1016, 994 F. Supp. 2d 906, 913 (S.D. Ohio 2014) (crediting Defendants' expert's testimony that was based on extrapolations from present research on midazolam). Rejection of opinions from Plaintiffs' experts simply because they were not expressly supported by a specific study, or because they were based on extrapolation rather than on a study involving 500 mg doses of midazolam, is contrary to Supreme Court instruction. Such rejection must be re-evaluated accordingly.

B. Henness has a strong likelihood of success on the merits of his claims.

"The preliminary injunction posture of the present case . . . requires [Henness] to establish a likelihood that [he] can establish both that [Ohio's] lethal injection protocol creates a demonstrated risk of severe pain and that the risk is substantial when compared to the known and available alternatives." *Glossip*, 135 S. Ct. at 2737. Henness's evidence will show a strong likelihood that he will prevail on the merits of his claims under the controlling standards. This Court should fully hear and consider that evidence, particularly in light of

the scientific matters that warrant re-evaluation, including those identified above.

1. Plaintiff Henness can satisfy *Glossip*'s first prong.

Defendants' use and reliance on midazolam as the critical first drug followed by a paralytic and potassium chloride makes it sure or very likely that Henness will experience severe pain and suffering from the effects of the drugs in the protocol. Using the second and third drugs unquestionably causes severe pain and suffering if Henness is not protected from that pain. Midazolam at any dose cannot and will not protect him. Additionally, using such a massive dose of midazolam injected intravenously will, itself, cause Henness to suffer terrifying and painful pulmonary edema, yet another source of severe pain and suffering caused by Defendants' protocol.

a. It is undisputed that the pain and suffering caused by the paralytic and potassium chloride in Defendants' execution protocol is constitutionally impermissible in the absence of a first drug that prevents the inmate from feeling that pain.

As explained in Sections III.A.1 and III.A.2 above, the courts incorrectly focused on "consciousness" rather than "sensation" in previous assessments of what an inmate might feel if exposed to the effects associated with the second and third drugs. But the basic scientific fact that those drugs cause severe pain and suffering is well-settled at this point, and not reasonably disputed. It is similarly established as a legal matter that the severe pain and suffering associated with either and both of those drugs is sufficiently serious enough to be unconstitutional if not abated for the inmate.

The Supreme Court has already accepted that the pain and suffering associated with the paralytic drug, such as the terrifying sensations of suffocation, air hunger, and feeling entombed alive, and the searing physical pain of being burned alive from the inside associated with the potassium chloride, are unconstitutionally severe if the inmate is not protected from feeling that pain. *Baze*, 553 U.S. at 53. Following *Baze*, the Supreme Court accepted as a given in *Glossip* that the pain and suffering associated with the paralytic and potassium chloride are sufficiently severe as to be unconstitutional if the inmate is not protected from that pain and suffering. *See Glossip*, 135 S. Ct. at 2743 (noting that a "relevant question here" deals with whether a 500-milligram dose of midazolam has "the effect of rendering a person insensate to pain caused by the second and third drugs"); *see also id.* at 2733 (noting that petitioners conceded that barbiturates "'reliably induce and maintain a comalike state that renders a person *insensate to pain*' caused by administration of the second and third drugs in the protocol.") (emphasis added).

The Sixth Circuit and this Court have likewise accepted that exposing the inmate to the pain and suffering associated with the second and third drugs is sufficiently severe as to be prohibited by the constitution in the absence of sufficiently protective measures. In *Campbell*, the Sixth Circuit reiterated that court had "accepted in *Fears* 'that the protocol's second and third drugs . . . would cause severe pain to a person who is fully conscious' [.]" *Campbell v. Kasich*, 881 F.3d 447, 450 (6th Cir. 2018). The court explained

that it had "already accepted that the physical pain [associated with the second and third drugs] is sufficiently serious" to be unconstitutional under that part of *Glossip*'s first prong. *Id.* Indeed, the court explained that there was no "need to prove any *more* pain (or suffering); the physical pain alone was already serious enough." *Id.* And in *Fears*, the Sixth Circuit explained that "we agree with the plaintiffs and the district court that the protocol's second and third drugs . . . could cause severe pain to a person who is fully conscious. (Hence the need for the first drug[.])" *Fears v. Morgan*, 860 F.3d 881, 886 (6th Cir. 2017) (en banc); *see also Campbell & Tibbetts*, No. 2:11-cv-1016, 2017 U.S. Dist. LEXIS 182406, *37–38 (S.D. Ohio Nov. 3, 2017).

Thus, the only relevant question remaining on *Glossip*'s first prong is whether Henness can show that an inmate who receives a 500-milligram dose of midazolam is sure or very likely to feel the serious pain associated with the drugs in Defendants' protocol. *Campbell*, 881 F.3d at 450.

b. New evidence further establishes that it is sure or very likely that Henness and other inmates will suffer terribly when executed using a lethal injection protocol with extra-clinical doses of IV-injected midazolam.

The assessments of pain and suffering associated with Defendants' execution protocol drugs have, to this point, been primarily focused on the severely painful and terrifying effects of the paralytic drug and potassium chloride. The Sixth Circuit expressly stated so by explaining that "[t]he relevant question, to reiterate, is whether" the 500-milligram dose of midazolam is sufficiently protective to prevent the inmate from experiencing the

"serious pain *from the second and third drugs in the protocol*." *Fears*, 860 F.3d at 886 (emphasis added, internal citation omitted). And Henness can and will show that it can't, as explained in the previous sections.

But there is new evidence that this Court must hear and consider by which Henness can also demonstrate another source and types of severe pain and suffering. Specifically, scientific evidence now demonstrates that Henness is sure or very likely to suffer the terrifying and horrifying sensations of pulmonary edema during his execution, and that he will feel severe burning pain upon injection, caused by Defendants using an IV-injected 500-mg dose of midazolam as the first drug in the protocol.

i. A dose of 500 mg of midazolam will be extremely acidic and thus, when injected intravenously, quickly cause burning sensations and then cause damage to the lungs resulting in terrifying sensations of pulmonary edema.

The midazolam Defendants use for lethal injection executions, and which they will use for Henness's execution, is midazolam manufactured for IV injection. Midazolam as prepared for IV injection is highly acidic and corrosive. It must be maintained at a pH level of approximately 3.0 in order to remain in solution. Once injected into an inmate, that midazolam must be buffered back to a normal pH of 7.4 before the drug's pharmacological effects can begin to be active and affect the brain. But with such a large dosage of midazolam to buffer, much of it remains in acid upon initial circulation through the body.

As Defendants have emphasized, the doses of midazolam used in lethal injection executions are typically several times the therapeutic dose. Indeed,

with the exception of the execution of Dennis McGuire in 2014, executions using midazolam have involved IV injections of approximately 100 mg (Lockett, in Oklahoma); 500 mg (Phillips, Otte, Van Hook in Ohio, and numerous others in other States); 750 mg (Wood, in Arizona); and perhaps as much as 1000 mg (some of the recent Alabama executions). At such large doses, it will take at least a few circulations of the blood for the midazolam to sufficiently mix with the blood and become buffered back to a pH 7.4 level. Thus, Defendants and other similar States are intravenously injecting inmates with a tremendously large amount of corrosive acid that remains in acid formulation for a period of time after IV injection.

That acid is rapidly redistributed from the IV injection site to the heart, and from there immediately to the lungs. It will return during repeated circulations before the midazolam is sufficiently buffered back to a neutral pH level. In fact, that process occurs twice in Ohio's protocol, because there are two injections each of 250 mg of midazolam. Thus, Ohio's protocol will cause a high volume of tremendously caustic solution to circulate through Henness's body upon IV injection, causing Henness to feel as if his body is on fire. That will cause Henness to be sure or very likely to feel severe pain and suffering following the IV injections of the midazolam.

Further, Ohio's protocol will cause a significant acid load in the lungs following IV injection of 500 mg of midazolam. Once in the tiny, thin, delicate blood vessels in the lungs, that amount of corrosive acid quickly starts to break down and compromise the capillaries and lung tissue. And that, in turn,

eliminates the barrier to fluid from circulation entering the lungs themselves. Fluid leaks from the blood vessels into the alveoli, the air spaces in the lungs that are supposed to contain only air. The inmate's lungs leak and fill with fluid, making air exchange increasingly difficult if not impossible, thus starving the inmate of oxygen. This phenomenon is called acute pulmonary edema. Henness is sure or very likely to experience it if injected intravenously with 500 mg of midazolam as Defendants plan under the current execution protocol. Moreover, suffering acute pulmonary edema is horrific and terrifying. Henness will be sure or very likely to experience the terror of suffocation and being unable to breathe, of air hunger, a sense of terror, panic, drowning, and asphyxiation.

These types of pain and suffering attributable to large doses of IV-injected midazolam—severe burning as if on fire and the horrifying suffocation of acute pulmonary edema—are sufficiently severe pain and suffering as to satisfy *Glossip*'s first prong.

ii. Pulmonary edema has been identified in numerous autopsies following executions using IV-injected midazolam.

Forensic pathology evidence confirms that inmates such as Henness who are executed using large (extra-clinical) doses of IV-injected midazolam are sure or very likely to develop the horrific, terrifying condition of acute pulmonary edema. Dr. Mark Edgar's review of available autopsy reports from executions establishes that over 85% showed evidence of acute pulmonary edema, often fulminant acute pulmonary edema. That indicates sudden and severe onset,

and is evidenced by bubbles, froth, and foam, in the lung tissue and/or in the larger airways.

That finding is consistent with the findings that most inmates executed using a large dose of IV-injected midazolam had lungs that were much heavier than normal. The froth and foam is only created by mixing air and fluid that occurs with respiration. The presence of frothy foam or residual bubbles in the inmates' lungs and breathing airways, frequently documented in the available written autopsy reports, conclusively demonstrates that the acute pulmonary edema is occurring while the inmate is still attempting to exchange air; that is, before the paralytic took effect to paralyze the inmate and stop his breathing. The evidence will show that the respiratory drive remains intact at that point, notwithstanding the large dose of IV-injected midazolam on board. Notably, Dr. Edgar personally conducted the autopsy of former Plaintiff Robert Van Hook. As he will testify, his detailed written findings, as well as the histology slides prepared from tissue samples taken during the autopsy, conclusively establish that Van Hook, like a tremendous number of other condemned inmates, suffered acute pulmonary edema during his execution. It is sure or very likely that Henness will suffer the same.

iii. Eyewitness accounts of executions using large doses of midazolam are consistent with the pathology findings of acute pulmonary edema.

The forensic evidence gleaned from post-execution autopsies described in the previous section is also consistent with the actions described by eyewitnesses to these executions. Numerous witness accounts describe

condemned inmates outwardly manifesting signs that they were suffering acute pulmonary edema. This Court has heard some of those accounts in a different context, and others it has not yet heard. Henness intends to present such evidence at the hearing on this motion.

These eyewitness accounts are striking in their similar descriptions of the inmate fighting to breathe, taking gasping breaths, exhaling hard enough to change the shape of the mouth, sometimes coughing, snorting, choking, often gasping loud enough to be audible to witnesses in another room separated by viewing glass. Witnesses observed the inmates move back and forth, turn the head from side to side, clench the jaw, moan, breathe heavily, exhale forcefully enough to make the lips puff out, make choking sounds, raise their body repeatedly and violently against restraining straps. Witnesses consistently recount seeing the inmates' abdomens rolling and moving in a wave-like action or knotting up and churning, chests heaving. Some inmates were even reported to struggle against their restraints, as if trying to rise up off the execution gurney, or grimacing or gasping like fish out of water. These consistent accounts provide further observational evidence that confirm the inmates' respiratory drive remains intact at the time Defendants will inject the paralytic and potassium chloride. While this Court has previously heard some of this evidence, it has never heard any of it or considered it in conjunction with the acute pulmonary edema the inmates are suffering; pain and suffering caused by IV injection of large doses of midazolam.

The Sixth Circuit disregarded the eyewitness evidence for two executions—Lockett and Wood—on a previous challenge because the Supreme Court said they had "little probative value because they did not involve the protocol at issue here." *Fears*, 860 F.3d at 888–89 (internal quotation marks and citation omitted). But that reasoning is distinguishable here, when the inquiry focuses squarely on the question of acute pulmonary edema caused by large doses of midazolam injected intravenously. The Supreme Court in *Baze* and *Glossip* never considered that claim of severe pain and suffering. In that regard, the Lockett and Wood executions are directly relevant to Henness's claim, regardless of the other two drugs in Defendants' protocol and, in Lockett's case, questions of how much midazolam was injected intravenously. Autopsy results for both men confirmed the presence of acute pulmonary edema, making both executions directly relevant to demonstrating Henness's claim. Eyewitness accounts from those executions and others previously presented to this Court were never considered as evidence of acute pulmonary edema; they must be reconsidered now in light of that different source of severe pain and suffering.

Similarly distinguishable is the Sixth Circuit's disregard for eyewitness evidence of inmates coughing or gasping. "[N]either demonstrates that the inmate is feeling air hunger," that court opined. *Fears*, 860 F.3d at 889. That court further noted testimony from Defendants' expert Dr. Antognini that "midazolam, like other anesthetics, can remove the sensation of air hunger by depressing the drive to breathe." *Id.* Regardless of the scientific accuracy of

that statement—and there are crucial flaws, such as describing midazolam as an anesthetic—the evidence now demonstrates that the inmates were coughing and gasping as they suffered acute pulmonary edema. Their actions, and the pathological evidence such as the frothy foam and bubbles on the lips, airway, and/or in the lungs, demonstrates that their drive to breathe remained intact, contrary to Dr. Antognini's speculation. That pathology evidence likewise refutes the speculation that perhaps these inmates were simply demonstrating "agonal breathing," involuntary respirations associated with dying, as Defendants seem to believe. *See id.*

Finally, the Sixth Circuit and this Court were incorrect to disregard as "cumulative," and therefore irrelevant, observational evidence from executions when that evidence was consistent with other, earlier-described executions, as explained in Section III.A.6 above.

In sum, all the observational evidence from execution eyewitnesses remains relevant to demonstrating Henness's claim. And that evidence all reinforces the forensic pathology evidence establishing that Henness is sure or very likely to suffer acute pulmonary edema if Defendants execute him using the current lethal injection protocol.

c. The overwhelming scientific consensus about midazolam's properties confirms that midazolam, at any dose, cannot work to block severe pain and suffering associated with the drugs in Ohio's lethal injection protocol.

Defendants rely solely on a 500 mg dose of IV-injected midazolam to protect the condemned inmate from the undisputable severe pain and suffering

associated with the paralytic and potassium chloride in their current execution protocol. Although the Supreme Court does not require a general scientific consensus to prove that the first drug in the three-drug protocol does not sufficiently protect the inmate from severe pain and suffering, *Baze*, 553 U.S. at 59, Henness can, nevertheless, show an overwhelming scientific consensus. Accordingly, he can also show an overwhelming scientific consensus that it is sure or very likely that he will feel severe pain and suffering during his lethal injection execution.

Some of the evidence on which Henness can rely is already part of the record in this case, in the form of testimony from Dr. Stevens, Dr. Bergese, Dr. Sinha, and CRNA Depas. Each of these experts testified about midazolam's limitations as a drug that cannot affect sensation because it is not an analgesic drug. Furthermore, Henness intends to provide evidence from Dr. David Greenblatt, the scientist whose work comprises the seminal body of research about midazolam. Indeed, it was Dr. Greenblatt's research upon which the original manufacturer of midazolam first brought the drug to market; that research did not support using the drug as a general anesthetic as the manufacturer desired, because it did not have analgesic properties. Dr. Greenblatt's research on midazolam is unparalleled, and it establishes that midazolam, at any dose, simply cannot protect an inmate from the severe pain and suffering associated with the second and third drugs. Dr. Greenblatt will also explain why super-large doses of IV-injected midazolam in an execution actually create an *additional* source of severe pain and suffering in the form of

acute pulmonary edema. Dr. Greenblatt will also demonstrate why solid scientific conclusions about midazolam's effects at 500 mg or more can be reached even in the absence of a research study using that amount of the drug.

Henness will also provide evidence from additional experts, such as Dr. David Lubarsky, yet another renowned anesthesiologist. Dr. Lubarsky will make the connection between midazolam research and midazolam as used on a daily basis. He will also reconfirm the testimony previously provided by experts in this case, thereby further demonstrating a scientific consensus about midazolam's limitations. He will also explain the severe pain and terror associated with acute pulmonary edema that Henness and other inmates will suffer.

Henness also intends to provide evidence from a pulmonary and emergency care specialist, who will further explain pulmonary edema to this Court, as well as explaining that even persons in a coma (a deeper level of sedation even beyond General Anesthesia) remain sensate to pain, and why an inmate can fail to response to the "consciousness checks" in Defendants' protocol but nevertheless will remain sensate and thus feel the terrifying sensations of acute pulmonary edema.

And Henness will provide evidence from Dr. Mark Edgar to establish that Henness will be sure or very likely to experience acute pulmonary edema as shown in the great percentage of inmate autopsies following execution with IV-injected midazolam, including Robert Van Hook here in Ohio.

This scientific evidence, along with the other scientific evidence that is part of the record in this case and which must be re-evaluated under the correct scientific framework, will establish a general scientific consensus in support of Henness's claims. Again, the question is not whether an inmate is "unconscious" to a certain level, and assessments of an inmate's consciousness are not the correct assessment to determine the risk of experiencing severe pain and suffering. Sensation is the key inquiry. And it is a scientific consensus that midazolam cannot and does not diminish an inmate's level of sensation—does not make the inmate insensate, as the Supreme Court indicated it must—to protect him against the severe pain and suffering Henness claims.

Moreover, even assuming *arguendo* that IV-injected midazolam at a dose of 500 mg or more could be so sedating that it somehow could become a pain-blocking drug, and further assuming *arguendo* that the relevant scientific measure is the level of consciousness here, the outcome remains the same; the horrific, terrifying suffering from acute pulmonary edema is sufficiently noxious to break through any sedative effect of IV midazolam injected as the first drug in Defendants' protocol. And that is so even if the inmate is outwardly sedated enough to not respond to Defendants' "consciousness checks." Furthermore, the acute pulmonary edema comes on much sooner than the second and third drugs, since it is caused by the IV-injected super-large dose of midazolam itself. Thus, whatever midazolam can do to blunt that pain, it has only started

to work at that point, and is insufficient to protect Henness from the severe pain and suffering that follows.

The evidence will demonstrate that IV-injected midazolam, at any dose, simply does not become a pain-blocking drug, and thus cannot, as a matter of scientific fact, render an inmate insensate. The evidence will also demonstrate that the severe terror and horrific suffering from acute pulmonary edema as Henness struggles and fights to breathe and the fiery pain upon injection that Warner described are each sufficiently noxious to overcome the sedative effect of the very drug that is causing him to suffocate and drown, even at 500 milligrams or more. That is, it is sure or very likely that the severe terror and suffering from the acute pulmonary edema and/or the burning pain from injecting a large volume of acid intravenously will overcome the sedative effect of midazolam before or during the inadequate "consciousness checks," or thereafter until the inmate is paralyzed from the second drug and can no longer physically attempt to breathe. And then, with the sedative effect of midazolam overcome by the burning from the acid and/or the terror and suffering associated with acute pulmonary edema, Henness, in the absence of an actual pain-blocking agent, will remain sensate to the severe pain and suffering associated with the second and third drugs that follows, despite not being able to communicate because he is paralyzed.

Thus, Henness will prove with greater certainty that evidence of sensation during the "consciousness checks" identified in some executions demonstrates the inmate remained sensate at that time. Moreover, further

scientific evidence bolsters the other side of that coin; Defendants' failure to identify evidence of sensation prompted by the "consciousness checks" is *not* evidence of insensation, but merely evidence that the inmate was sedated such that he was unable to respond.

d. Conclusion

To summarize in terms of art relevant to this case, the second and third drugs in Defendants' execution protocol will unquestionably subject Henness to severe pain and suffering if the first drug does not shield him from that pain and suffering. Midazolam at any dose is not an analgesic, pain-blocking drug; the drug does not take on analgesic properties or otherwise function as an analgesic at high doses; and the drug cannot make Henness insensate to the severe pain and suffering associated with the second and third drugs. Because he will remain sensate in the absence of a pain-blocking agent, Henness will be sure or very likely subjected to that severe pain and suffering as he is burned, then paralyzed, suffocated, and entombed alive from the second drug, and then has searing liquid fire poured into his veins from the third drug, all in violation of the Eighth Amendment.

Moreover, high doses of IV-injected midazolam, including the 500 mg to 1000 mg Defendant plan to use on Henness, are sure or very likely to cause him and other inmates to suffer from additional sources of severe pain and suffering. When Defendants inject those large doses of a highly acidic, caustic substance directly into Henness's blood stream, that will surely or very likely cause fiery pain as it circulates throughout his body. And Henness will also be

sure or very likely to suffer acute pulmonary edema, as the acid corrodes the delicate blood vessels and membranes in his lungs, causing him to suffocate and drown in his own fluids. That is a horrific, terrifying, and panic-inducing sensation.

Accordingly, there is a strong likelihood that Henness can establish that he is sure or very likely to be subjected to severe pain and suffering associated with the drugs in Defendants' execution protocol. He has satisfied his injunctive relief burden on *Glossip*'s first prong by showing a strong likelihood that he can establish that Ohio's lethal injection protocol creates a demonstrated risk of severe pain and suffering. *See Glossip*, 135 S. Ct. at 2737.

2. Plaintiff Henness can satisfy *Glossip*'s second prong.

To meet the second part of his injunctive relief burden, Henness must show a likelihood that he can establish that the risk of severe pain and suffering posed by Defendants' current execution method is substantial when compared to the known and available alternatives. *Glossip*, 135 S. Ct. at 2737. That is, he must show it is likely he can establish an alternative execution method that is available, feasible, and readily implemented and which significantly reduces that substantial risk. *See Fears*, 860 F.3d at 890; *Campbell*, 881 F.3d at 453.

Henness can satisfy his burden on this second *Glossip* prong because he alleges two alternative execution methods that are both feasible, both are

available and readily implemented with ordinary transactional effort, and both significantly reduce a substantial risk of serious pain.[11]

The Sixth Circuit has defined "available" and "readily implemented" as functionally the same term for a lethal-injection protocol. For an alternative "to be 'available' and 'readily implemented,' Ohio need not already have the drugs on hand. But for that standard to have practical meaning, the State should be able to obtain the drugs with ordinary transactional effort." *Fears v. Morgan*, 860 F.3d 881, 891 (6th Cir. 2017) (en banc); *see also In re Ohio Execution Protocol Litig. (Tibbetts & Campbell)*, No. 2:11-cv-1016, 2017 U.S. Dist. LEXIS 182406, *70 (S.D. Ohio Nov. 3, 2017) (noting the Sixth Circuit in *Fears* defined "available" to mean "ordinary transactional effort"). Henness can satisfy that standard for both of his alleged alternatives.

The Sixth Circuit has not defined "feasible" in the lethal-injection challenge context. But Webster's Dictionary defines it as "capable of being done or carried out," or (for English learners) "possible to do." Webster's, https://www.merriam-webster.com/dictionary/feasible. And Henness can satisfy that standard as to both of his alternatives as well.

[11] Even if the Court reads the controlling standard to require an additional showing of "needless suffering" beyond the severe pain, Henness satisfies that showing too, by demonstrating *all* the suffering in Defendants' three-drug midazolam protocol is needless; the two alleged alternatives entirely eliminate all the pain and suffering imposed by the current method, making all the suffering caused by the current method "needless" by definition.

a. A wedge pillow is available, readily implemented, and feasible to significantly reduce a substantial risk of serious pain posed by the risk of obstruction.

As applicable to both alternatives, it has previously been demonstrated or conceded in this case that using a wedge pillow to prop up the condemned inmate at an angle is available, readily implemented, and feasible to significantly reduce a substantial risk of serious pain posed by the risk of obstruction. *See, e.g.*, *Campbell*, 881 F.3d at 452 n.2. Defendants have used a wedge pillow or agreed to use a wedge pillow for other executions that involved midazolam, including those for McGuire, Campbell, and Van Hook. Moreover, Defendants expressly conceded in their Amended Answer that they possess or have within their control, or could obtain with ordinary transactional effort, a wedge-shaped cushion. (ECF No. 1842, PageID 74543.) Thus, Henness has satisfied that part of his injunctive relief burden as to the wedge pillow under either alternative at issue here.

b. Both alternative execution methods are injections and are fully compliant with Ohio's current execution statute.

Henness expressly does not concede that an alternative execution method must be currently permitted under Ohio statute to satisfy *Glossip*'s second prong, whether as to the "feasibility" requirement, or the "readily implemented" or "available" requirements. This Court has suggested that an alternative must be statutorily authorized to satisfy *Glossip*'s availability requirement. *See In re Ohio Execution Protocol Litig. (Campbell & Tibbetts)*, No. 2:11-cv-1016, 2017 U.S. Dist. LEXIS 183951, *25–26 (S.D. Ohio Oct. 31, 2017)

(denying former Plaintiff Campbell leave to amend and supplement his complaint in the midst of preliminary injunction hearing). But subsequent developments undermine any further reliance on that statement made in a rushed context. (*See* Opinion and Order, ECF No. 1405 (granting Campbell leave to amend and supplement complaint after unsuccessful execution attempt).) That subsequent order in December of 2017 granting Campbell leave to file amendments that included the amendments denied in the October 31, 2017 Order supports Henness's position. Specifically, Henness asserts that Sixth Circuit authority establishes that an alternative need not be statutorily available to satisfy *Glossip*'s second prong. *See In re Campbell*, 874 F.3d 454, 462, 465 (6th Cir. 2017).

In *Campbell*, the court explained the Supreme Court in *Glossip* "expressly refused to countenance the possibility that a state could be left without any lawful means of execution." *Id.* at 462. The court then explained the significance of that proposition, reasoning that "[t]he fact that Ohio *currently* permits execution only by lethal injection does not" mean an Ohio death sentence becomes invalid if lethal injection is struck down as unconstitutional, because the "Ohio legislature could, tomorrow, enact a statute reinstating [sic] the firing squad as an alternative method of execution." *Id.* at 465. *See also Johnson v. Precythe*, No. 17-2222, 901 F.3d 973, 2018 U.S. App. LEXIS 24153, *12 (8th Cir. Aug. 27, 2018) ("Under the *Glossip*/*Baze* standard, a State may be obliged under the Constitution to implement an alternative method of execution," even if the State does not want to adopted

that method) (citing *Baze*, 553 U.S. at 52)). With ordinary legislative transactional effort, Ohio could adopt a new execution method of lethal injection, or a new manner of execution entirely; permitting any other assessment would undermine the Sixth Circuit's reasoning in *In re Campbell*. It would also lead to absurd results; a State could entirely inoculate its lethal injection method from any constitutional scrutiny simply by writing, with a high degree of specificity, a specific execution protocol into statute as the only permissible execution method. Any comparative *Baze*/*Glossip* challenge to such a method would necessarily fail on *Glossip*'s second prong, because *nothing* else would be considered "available."

Nevertheless, that question need not be further considered here in any event, other than to note Henness's non-concession. Henness's two alleged alternatives both comport with the terms of Ohio Rev. Code § 2949.22, and thus satisfy Ohio's statutory law governing executions.

First, both methods alleged here satisfy § 2949.22(B) in all respects. They can both be accomplished "within the walls of the state correctional institution designated by the director of rehabilitation and correction as the location for executions, within an enclosure to be prepared for that purpose," which excludes "public view" of the execution. Ohio Rev. Code § 2949.22(B). To wit, both methods can be carried out in the Death Chamber at Southern Ohio Correctional Facility. Similarly, both methods would be administered under the direction of the SOCF Warden, consistent with Defendants' current practice. *Id.*

Second, both methods are used regularly in the medical-aid-in-dying context, neither requires establishing peripheral IV injection sites, and one includes a barbiturate while the other includes an opioid pain-killer. Thus, both will satisfy the statutory commandment to quickly and painless cause death. Ohio Rev. Code § 2949.22(A). And to the extent that Defendants' current method comports with § 2949.22(A)'s requirement that "application of the drug or combination of drugs shall be continued until the person is dead" notwithstanding a non-continuous infusion, both alternatives can be similarly applied.

Third, both alternatives are accurately categorized as "lethal injection" in accordance with § 2949.22(A), even though they contemplate administration via a nasogastric or orogastric feeding tube rather than peripheral IV. This Court can follow the trail blazed by the only court to consider this unique question, which concluded they are both properly considered "injection" of the lethal drugs. *See Hamm v. Dunn*, 302 F. Supp.3d 1287, 1299–1301 (N.D. Ala. Feb. 6, 2018).[12]

The *Hamm* court considered expert testimony from Dr. Charles Blanke, who specializes in end-of-life care and medical-aid-in-dying procedures. Dr.

[12] The Eleventh Circuit vacated the portion of the district court's February 6, 2018 order granting a stay of execution for lack of sufficient findings to establish a significant possibility of success on the merits. *Hamm v. Comm'r*, No. 18-10473, Order, slip op. at 8–9 (11th Cir. Feb. 13, 2018). The appeals court did not, however, reverse the district court's finding that the proposed alternative administration method was "injection" for purposes of Alabama's lethal injection statute.

Blanke explained to the court that the drug or drug combination could be placed into a syringe, which could then be inserted into the end of a nasogastric or orogastric tube, which is a tube inserted into the nose (for the former) or the mouth (the latter), and down into the stomach. "The person administering the drugs would compress the plunger of the syringe, pushing fluid through the tube and directly into the stomach, *i.e.*, the drugs would be injected into the person through" the tube. *Id.* at 1296.[13] The court also consulted Taber's Medical Dictionary and recounted that "the medical definition of 'injection' does not require a needle piercing the body; it requires only '[t]he forcing of a fluid into a vessel, tissue, *or cavity*.' Injection, Taber's Medical Dictionary Online, *https://www.tabers.com/tabersonline/view/Tabers-Dictionary/757723/all/injection?q=injection* (emphasis added)." *Id.* at 1301. And, the court further noted, "[n]on-medical dictionaries appear to agree. *See* Inject, Merriam-Webster's Dictionary, *https://www.merriam-webster.com/dictionary/injecting* ("[T]o force a fluid into"); Inject, Oxford English Dictionary, *http://www.oed.com/view/Entry/96079?redirectedFrom=inject#eid* ("To drive or force (a fluid, etc.) in a passage or cavity, as by means of a syringe, or by

[13] Although the *Hamm* opinion only specifically identifies the "nasogastric tube" by name, Dr. Blanke testified in the hearing that the same analysis applied as to an orogastric tube. *See* Hr'g Tr. at 114–15, Jan. 31, 2018, *Hamm v. Dunn*, No. 2:17-cv-2083, N.D. Ala.

some impulsive power; said esp. of the introduction of medicines or other preparations into the cavities or tissues of the body.")." *Id.*

After considering the evidence, the *Hamm* court found "that administration of the proposed alternative drugs through a [feeding tube] would comply with Alabama's statute requiring execution by 'lethal injection' because it would involve forcing the liquid into Mr. Hamm's body." *Id.* Henness will offer sufficient evidence to establish in this case, on the same reasoning, that administration of the alternative drugs via a feeding tube satisfies § 2949.22(A) because it fits within the definition of "lethal injection."

c. The alternative using 10 grams of secobarbital in 4 ounces of sweet liquid, injected orally, satisfies *Glossip*'s second prong.

Henness also satisfies the second *Glossip* prong by demonstrating that an alternative execution method using 10 grams of secobarbital in four ounces of sweet liquid, injected orally, is feasible, available and readily implemented with ordinary transactional effort, and it significantly reduces a substantial risk of serious pain posed by the current method.

i. The secobarbital alternative is available, feasible, and readily implemented with ordinary transactional effort.

This alternative method is "available" and "readily implemented" under the Sixth Circuit's standard because Henness will demonstrate that Ohio can obtain 10 grams of secobarbital and four ounces of sweet liquid with ordinary transactional effort. Secobarbital and sweet liquid are available for purchase on the open market. And Defendants, as agents of the State of Ohio,

unquestionably have the full measure of monetary resources to obtain the secobarbital and sweet liquid.

Further, evidence in the record already demonstrates that the Warden of SOCF need only ask to purchase execution-related materials and the funding will be made available. (*See* Dep. Warden Cool, Hr'g Tr., ECF No. 1359, PageID 50794; Warden Erdos, Hr'g Tr., ECF No. 1360, PageID 51028.) According to Defendant Erdos, a request for such a purchase has never been denied. There is no reason to believe the situation is any different regarding alternative execution method supplies.

The equipment necessary to do a nasogastric injection or orogastric injection is also available for purchase with ordinary transactional effort. In fact, Defendants have essentially already conceded that fact. The medical supplies necessary to inject the secobarbital alternative are essentially the same as the supplies necessary to inject the four-drug MDMP II method. Defendants admitted in their Amended Answer (ECF No. 1842, PageID 74543–44), that, as to the MDMP II alternative, they "possess or have within their control, or could obtain with ordinary transactional effort, the medical supplies necessary to administer these drugs orally rather than through peripheral IV access."

Additionally, Henness can demonstrate that the secobarbital alternative is feasible, *i.e.*, it is capable of being done or carried out. Secobarbital comes in 100 mg capsules, which need to be pulled apart and the contents dumped into a mixture with the sweet liquid. Because Defendant Drug Administrators have

previously attested that they can mix up the sodium thiopental powder into an injectable liquid (*see, e.g.*, Hr'g Tr., *Cooey v. Strickland*, No. 2:04-cv-1156, ECF No. 474, PageID 9789), it follows that they can carry out this even simpler task of pulling capsules apart and dumping the contents into a container of liquid. Additionally, Defendant Drug Administrators currently must draw the lethal injection drugs into syringes for injection. They use 60 ml syringes to inject 100 ml of midazolam, with 50 ml in each syringe. Four ounces is approximately 120 ml. Defendants are capable of drawing 120 ml. of fluid into two or three of the same size syringes they currently use.

Additionally, it is feasible for Defendants to administer the injections of secobarbital from bedside. Although Defendants currently push the syringes of lethal drugs from a separate room through several feet of IV tubing, they are capable of pushing the same type of syringe plungers from a bedside position. After all, Defendants at one time included in their execution protocol an intramuscular injection method, which required bedside injection as well. (*See* DRC Policy 01-COM-11, *Cooey v. Strickland*, No. 2:04-cv-1156, ECF No. 607-1, PageID 13265 (requiring that a "medical team member shall enter the chamber at the direction of the Warden and shall administer an intramuscular injection" of the lethal drugs).) There is no basis to believe the Drug Administrators are not able to push a plunger on a syringe connected to a feeding tube from bedside when they previously were capable of doing intramuscular injections from bedside. Bedside injections are also feasible in that there are no additional concerns about identification of Defendant Drug Administrators.

Two Drug Administrators currently enter the Death Chamber with the curtains open to do the "consciousness checks" and the additional assessment before the coroner enters the room, and the same disguising attire they wear for that procedure will be similarly sufficient to do the injections from bedside in the Death Chamber.

Additionally, placing the orogastric or nasogastric feeding tube is feasible. According to the formal Scope of Practice document approved on June 20, 2018 by the Ohio State Board of Emergency Medical, Fire and Transportation Services, Division of EMS/Department of Public Safety, nasogastric and orogastric tube placement is within the scope of authorized services for Paramedics.[14] At least two of the Defendant Drug Administrators are practicing Paramedics. Accordingly, Defendants are capable of inserting either of those two types of tubes to facilitate the oral injection; either some of the Drug Administrators have already had that training or, if not, they are authorized to do so within the scope of their Paramedic practice.

Further, using the secobarbital method is feasible in that its efficacy is well-established. It has been used in medical-aid-in-dying states hundreds of times, including in Oregon where Dr. Blanke has had more than 19 years of experience with MAID, including more than 50 cases. In fact, since 1998, and just in Oregon alone, the secobarbital method has been used in 747 cases. In Colorado, 21 out of 50 MAID cases in 2017 involved the secobarbital method.

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[14] Available at http://www.publicsafety.ohio.gov/links/ems_scope_practice.pdf.

There is a long history of using the secobarbital method in Washington state dating back to that state's adoption of its MAID law in 2009. In Oregon, the median time from ingestion to coma for MAID cases using the secobarbital method is approximately 5 minutes, and the median time from ingestion to death is approximately 25 minutes. In Dr. Blanke's experience, the secobarbital method has proven to be effective at causing death 99.4% of the time, an improvement on Ohio's rate of effectiveness using peripheral IV injection methods, which has proven effective 96.5% of the time.[15]

In sum, the secobarbital alternative is available, feasible, and readily implemented with ordinary transactional effort.

ii. The secobarbital alternative would significantly reduce a substantial risk of severe pain posed by the current lethal injection protocol.

The secobarbital alternative also satisfies the second part of *Glossip*'s second prong, because it significantly reduces a substantial risk of severe pain posed by the current method.

First, the substantial risks of severe pain associated with the current method that Henness alleges can be generally summarized, in relevant part, to include the following:

[15] Since it resumed executions in 2009, Ohio has attempted 58 executions to date. It has completed 56 of those executions. *See* http://www.drc.ohio.gov/executions/1999-present. But that page does not include the unsuccessful attempts to execute Romell Broom on September 16, 2009, and Alva Campbell, Jr., on November 15, 2017.

1) the terrifying suffering related to pulmonary edema after IV injection of 500 milligrams of highly acidic midazolam

2) the severely painful burning from IV injection of the large dose of highly acidic midazolam;

3) the severely painful burning from IV injection of a highly acidic paralytic drug;

4) the horrific feelings of suffocation and entombment as the paralytic takes effect;

5) the horrific feelings of having liquid fire poured into the veins associated with the IV injection of potassium chloride and the effects of that drug on the heart; and

6) the prospect of experiencing another failed execution attempt like Broom and Campbell, in which Defendants made multiple and continuous but ultimately unsuccessful needle sticks to obtain peripheral IV access.[16]

As explained earlier, each of those sources of severe pain and suffering is sure or very likely to occur under Defendants' current execution protocol.

Second, *elimination* of a risk of severe pain and suffering, particularly when that risk is substantial, is by definition significantly reducing the risk of

[16] There is also the sure or very likely risk posed by the current protocol that Henness will obstruct and thus suffer air hunger after Defendants inject the midazolam, but the wedge pillow portion of the secobarbital alternative satisfies the risk reduction requirement for that particular type of harm, as discussed in Section III.B.2.a, above.

that harm occurring. Applying that fundamental logical concept here, the secobarbital alternative more than satisfies the *Glossip* requirement. That alternative method:

1) Eliminates all of the substantial risk of terrifying suffering related to pulmonary edema by eliminating any use of midazolam and by injecting the lethal drug into the stomach (which is a highly acidic environment already), rather than directly into the blood stream via peripheral IV injection;
2) Eliminates all of the substantial risk of the severely painful burning from peripheral IV injection of a highly acidic large dose of midazolam, by eliminating any use of midazolam and by injecting the lethal drug into the stomach (which is a highly acidic environment already), rather than directly into the blood stream via peripheral IV injection;
3) Eliminates all of the substantial risk of the severely painful burning from peripheral IV injection of a highly acidic paralytic drug, by eliminating the use of any paralytic drug;
4) Eliminates all of the substantial risk of the severely painful burning from peripheral IV injection of a highly acidic paralytic drug, by eliminating the use of any paralytic drug;
5) Eliminates all of the substantial risk of the horrific feelings of suffocation and entombment as the paralytic takes effect, by eliminating the use of any paralytic drug;

6) Eliminates all of the substantial risk of the horrific feelings of having liquid fire poured into the veins associated with the IV injection of potassium chloride and the effects of that drug on the heart, by eliminating the use of any potassium chloride;

7) Eliminates all of the substantial risk of experiencing another failed execution attempt with multiple painful needle sticks like Broom and Campbell, by eliminating administration via peripheral IV injection;

8) Eliminates all of the substantial risk that midazolam will be incapable of blocking severe pain and suffering associated with pulmonary edema, the paralytic drug, the potassium chloride, and the burning pain from such a large dose of midazolam injected intravenously, by eliminating midazolam entirely; and

9) Eliminates or sufficiently reduces the substantial risk of Henness suffering severe pain because it includes a barbiturate, thus protecting Henness against pain.

d. The alternative using 3.75 grams of midazolam, 100 mg digoxin, 15 grams morphine sulfate, and 2 grams propranolol (the "MDMP II alternative") satisfies *Glossip*'s second prong.

Henness also satisfies the second *Glossip* prong a second way. He can demonstrate that an alternative execution method using 3.75 grams of midazolam, 100 milligrams digoxin, 15 grams morphine sulfate, and 2 grams propranolol, injected orally, is feasible, available and readily implemented with

ordinary transactional effort, and it, too, significantly reduces a substantial risk of serious pain posed by the current method.[17]

i. The MDMP II alternative is available, feasible, and readily implemented with ordinary transactional effort.

Defendants have conceded that the MDMP II alternative is available and readily implemented as the Sixth Circuit has defined that term. Defendants admitted in their Amended Answer as follows:

> Defendants admit that they possess, or have within their control, or could obtain with ordinary transactional effort, midazolam, digoxin, morphine sulfate, and propranolol. Defendants aver that they possess or have within their control, or could obtain with ordinary transactional effort, the medical supplies necessary to administer these drugs orally rather than through peripheral IV access.

(Defs. Am. Answer, ECF No. 1842, PageID 74543.)

In addition to Defendants' concession on the "available" and "readily implemented" considerations, Henness can demonstrate the MDMP II alternative is feasible, *i.e.*, it is capable of being done or carried out. First, Defendants themselves admitted Henness's allegation that the method is feasible. (*Compare* Henness's Am. Individual Supplemental Complaint, ECF No. 1494, PageID 60207–08, ¶¶ 2052 ("Using oral injection is available and feasible . . ."); 2054 ("[T]his manner and method of execution is an available,

[17] The 100 milligrams of digoxin represents a slight modification from the 50 milligrams alleged in Henness's Complaint.

feasible alternative . . . ") *with* Defs.' Am. Answer, ECF No. 1842, PageID 74544 (admitting certain matters '[a]s to all allegations regarding this alternative . . .").)

Second, Henness can demonstrate that the MDMP II alternative is feasible because the drugs can be sequentially injected for reasons similar to the secobarbital method. Defendants have an ample supply of midazolam in IV injection form, so there is no difficulty to inject that orally, even if mixed with a sweet, non-citrus liquid to disguise the taste. Midazolam in liquid form will be even more effective than diazepam in powder form dissolved in liquid as used in the typical four-drug MAID option, because there is no concern that some amount of the benzodiazepine will reform as a solid in the stomach and thus fail to pass into the blood stream as quickly as a liquid. Digoxin is available for purchase in injectable solution, but if Defendants purchase the digoxin in tablet form, those tablets can be dissolved in sweet liquid for oral injection. Morphine sulfate is sold as a solution, suitable for oral injection. And propranolol is sold as an injectable liquid or in an oral liquid solution, or as a tablet or capsule, both of which can be dissolved in liquid for oral injection.

Third, similar to the secobarbital method, Defendants are capable of preparing syringes of these drugs in liquid state for oral injection.

Fourth, it is feasible for Defendants to administer the injections of the MDMP II alternative from bedside for the same reasons it is feasible as to the secobarbital alternative.

Fifth, placing the orogastric or nasogastric feeding tube for the MDMP II method is feasible for the same reasons applicable to the secobarbital alternative method.

Sixth, using the MDMP II method is feasible in that its efficacy can be considered well-established. A four-drug method that is similar in all respects other than the first drug has been used in medical-aid-in-dying states hundreds of times. MAID proponents developed the four-drug method in recent years in response to the manufacturer of secobarbital doubling its price after California passed its MAID law, thus making it more difficult for the patients to afford the 10 grams of secobarbital. Despite its relative youth, however, the four-drug method has been used rather frequently.

For example, a method called DDMP II, using 1 gram of diazepam instead of midazolam like Henness alleges, was used in Oregon 66 times in 2017. That is a significant jump from the 6 persons who had used the four-drug method between 1998 and 2016. The method has become just as common as the secobarbital method in some jurisdictions, if not more so. For example, in Oregon, there were 66 MAID cases that used the four-drug method in 2017, and 71 cases using secobarbital. In Colorado, 28 MAID patients used the four-drug method, versus 21 who used secobarbital. In Washington state, there were 130 cases involving the four-drug method in 2017, up from 53 in 2016 and 4 in 2015. In Oregon, the median time from ingestion to unconsciousness for the DDMP II method is 7 minutes. The median time from ingestion to death is 125 minutes, although that number is skewed by a fraction of outlier cases

that typically involve a patient with an extreme degree of opioid tolerance from present or recent past use of opioids at high dosages: a factor that does not apply to Henness or most condemned inmates. And the four-drug method can be expedited by administering the 100 mg of digoxin 15-30 minutes before administering the remaining three drugs. This would be feasible in the execution context by injecting the digoxin, mixed with 2 ounces of apple juice or similar sweet liquid, from a syringe directly into Henness's mouth cavity as the first procedural step upon entering the Death Chamber.

Finally, the four-drug method, like the secobarbital method and for the same reasons, is equally or more effective at causing death than the lethal injection methods used in Ohio that involve peripheral IV insertion.

In sum, Henness's proposed four-drug alternative is available, feasible, and readily implemented with ordinary transactional effort.

ii. The MDMP II alternative would significantly reduce a substantial risk of severe pain posed by the current lethal injection protocol.

The four-drug MDMP II alternative also satisfies the second part of *Glossip*'s second prong, because it significantly reduces a substantial risk of severe pain posed by the current method.

The substantial risks of severe pain ameliorated by the MDMP II method are similar to the risks reduced by the secobarbital method. And again, *elimination* of a risk of severe pain and suffering, particularly when that risk is substantial, is by definition significantly reducing the risk of that harm

occurring. Applying that fundamental logical concept here, the MDMP II alternative more than satisfies the *Glossip* requirement. This alternative:

1) Eliminates all of the substantial risk that midazolam will be incapable of blocking the severe pain and suffering from pulmonary edema, or the pain and suffering from IV injection of 500 mg of highly acidic midazolam, or the pain and suffering associated with the paralytic or from the potassium chloride, because midazolam will only be used as an anxiolytic working in synergy with the opioid analgesic morphine. Midazolam will not be used as a pain-blocking drug, a function it is incapable of performing;

2) Significantly reduces if not entirely eliminates the substantial risk of severe pain and suffering from pulmonary edema caused by IV injection of 500 mg of midazolam at a highly acidic pH level, by injecting that drug orally rather than through peripheral IV administration. Absorption of 3.75 grams of midazolam through the stomach rather than peripheral IV injection eliminates that risk, because the drug is not injected directly into the veins then instantly taken into the heart and then the lungs as a corrosive, acidic solution. Instead, the midazolam will be injected into the stomach, which is an acid-manufacturing machine and thus not at risk of damage from the acidic midazolam before the drug is

buffered back to a neutral pH level and passed on to the rest of the body;

3) Eliminates all of the substantial risk of severe pain and suffering associated with injecting intravenously an extremely large dose of highly acidic midazolam, by injecting the midazolam into the stomach;

4) Eliminates all of the substantial risk of severe pain and suffering associated with injection and suffocation by the paralytic drug's effects, by eliminating the use of any paralytic drug;

5) Eliminates all of the substantial risk of severe pain and suffering associated with injection and action of potassium chloride, by eliminating the use of potassium chloride;

6) Eliminates all of the substantial risk of experiencing another failed execution attempt with multiple painful needle sticks like Broom and Campbell, by eliminating administration via peripheral IV injection;

7) Eliminates or sufficiently reduces the substantial risk that Henness will suffer severe pain because it includes a pain-blocking opioid in the morphine, thus protecting Henness against pain.[18]

[18] There is also the sure or very likely risk posed by the current protocol that Henness will obstruct and thus suffer air hunger after Defendants inject the midazolam, but the wedge pillow portion of the MDMP II alternative satisfies the risk reduction requirement for that particular type of harm, as discussed in Section III.B.2.a, above.

3. Plaintiff Henness can also demonstrate a *Baze/Glossip* claim by demonstrating that Ohio refuses, without legitimate penological justification, to adopt either of his alternative methods that are available, feasible, readily implemented, and that significantly reduce a substantial risk of severe pain.

Finally, Henness can demonstrate a *Baze/Glossip* Eighth Amendment claim in a slightly different way. In *Baze*, the Court explained that "[i]f a State refuses to adopt" an alternative that is feasible, readily implemented and significantly reduces a substantial risk of severe pain "in the face of these documented advantages, without legitimate penological justification for adhering to its current method of execution, then a State's refusal to change its method can be viewed as 'cruel and unusual' under the Eighth Amendment." *Baze*, 553 U.S. at 52. The Court reiterated that path when it analyzed "Kentucky's failure to adopt petitioner's proposed alternatives" as a separate and distinct analysis on whether the State's "execution procedure is cruel and unusual." *Id.* at 56. Likewise, the Eighth Circuit explained that, under *Baze/Glossip*, "a State *may be obliged* under the Constitution to implement an alternative method of execution." *Johnson v. Precythe*, No. 17-2222, 901 F.3d 973, 2018 U.S. App. LEXIS 24153, *12 (8th Cir. Aug. 27, 2018) (citing *Baze*, 553 U.S. at 52) (emphasis added).

Accordingly, Henness can demonstrate an Eighth Amendment claim here by showing that there is an alternative execution method that is feasible, readily implemented, and which significantly reduces a substantial risk of severe pain from the current method, but which Defendants, without legitimate penological justification, refuse to adopt. Or, to paraphrase *Johnson*, Henness

can show there is a method that Defendants are obliged under the Constitution to implement, but which they do not use.

Defendants continue to use their current three-drug midazolam method notwithstanding the existence of the two alleged alternatives that, Henness will demonstrate, are available, feasible, and readily implemented, and which completely eliminate—and thus "significantly reduce"—the substantial risk of severe pain posed by the current method. It has already been demonstrated in this case that Defendants' three-drug midazolam method presents a substantial risk of serious pain, even if the Sixth Circuit did not believe that proof rose to the level of "sure or very likely." *See Fears*, 860 F.3d at 886. Indeed, Henness will present evidence to establish that the IV three-drug midazolam method presents a sure or very likely risk of severe pain. And Henness will demonstrate there is no legitimate penological justification for adhering to the current method in light of the overwhelming advantages of the alleged alternatives. Notably, both of the alleged alternatives or their analogs have been used hundreds of times in MAID situations and thus their efficacy is well-established, while the administration method and drugs involved drastically reduces the sure or very likely risk (and, by extension, the substantial risk) of suffering severe pain the current method poses. Consequently, Henness can and will independently establish an Eighth Amendment violation in this way as well.

C. There is a substantial threat that Henness will suffer an irreparable injury if injunctive relief is not granted.

Henness will suffer irreparable harm as a matter of law, and as a matter of fact, if a stay of execution and preliminary junction are not granted. *See In re: Ohio Execution Protocol Litig. (Lorraine)*, 671 F.3d at 602; *In re: Ohio Execution Protocol Litig. (Lorraine)*, 840 F. Supp. 2d at 1058–59; *Cooey (Smith)*, 801 F. Supp. 2d at 656–58; *see also In re Ohio Execution Protocol Litig. (Phillips, Tibbets, Otte)*, 235 F. Supp. 3d 892, 958–60 (S.D. Ohio Jan. 26, 2017), reversed on other grounds, *Fears*, 860 F.3d 892.

1. Henness will suffer irreparable injury as a matter of law.

When, upon review of a motion for injunctive relief, it is found that a constitutional right is being threatened or impaired, "a finding of irreparable injury is mandated," and "a successful showing on the first factor mandates a successful showing on the second factor—whether the plaintiff will suffer irreparable harm." *Bonnell v. Lorenzo*, 241 F.3d 800, 809 (6th Cir. 2001) (citing *Elrod v. Burns*, 427 U.S. 347, 373 (1976)); *see also Miller v. City of Cincinnati*, 622 F.3d 524, 540 (6th Cir. 2010) (explaining that even "minimal infringement" on fundamental rights can be sufficient to justify injunctive relief); *KindHearts for Charitable Humanitarian Development, Inc. v. Geithner*, 676 F. Supp. 2d 649, 653 (N.D. Ohio 2009) (explaining that a plaintiff demonstrates irreparable harm if the plaintiff's claim is based upon a violation of the plaintiff's constitutional rights). As this Court has previously observed in this litigation, "the irreparable injury a constitutional violation presents is clear and favors a stay." *In re: Ohio Execution Protocol Litig. (Lorraine)*, 840 F. Supp. 2d at 1059 (citation omitted).

Because Henness has demonstrated a likelihood of success on his constitutional claims, a finding of irreparable harm exists as a matter of law.

2. Henness will suffer irreparable injury as a matter of fact.

There is no doubt that failure to grant a stay of execution and preliminary injunction would cause Henness irreparable injury in fact, since Defendants will execute—or at least attempt to execute—him. Henness will be denied the protections of his constitutional rights. *See In re: Ohio Execution Protocol Litig. (Lorraine)*, 671 F.3d at 602; *In re: Ohio Execution Protocol Litig. (Lorraine)*, 840 F. Supp. 2d at 1058–59; *Cooey (Smith)*, 801 F. Supp. 2d at 656–58; *see also In re Ohio Execution Protocol Litig. (Phillips, Tibbets, Otte)*, 235 F. Supp. 3d 892, 958–60 (S.D. Ohio Jan. 26, 2017), reversed on other grounds, *Fears*, 860 F.3d 892.

There is nothing more final and irreversible than death. Henness obviously cannot be compensated adequately through money damages if or when Defendants violate his constitutional rights in executing him. For Defendants to unconstitutionally execute Henness before he has a chance to be heard on the merits of his claims would be irreparable harm for which he has no adequate remedy. A "final judgment" in the above-captioned case following a merits trial will be useless for Henness if his execution is not stayed and preliminarily enjoined. This factor weighs in Henness's favor.

D. Granting injunctive relief will not substantially harm other parties and, even if there was some harm, Henness's potential injury outweighs any such other harm.

While admittedly the State of Ohio has an interest in seeing finality by imposing the sentence of death, substantial harm to the State will not follow from this stay of execution and preliminary injunction. *In re: Ohio Execution Protocol Litig. (Lorraine)*, 840 F. Supp. 2d at 1059. Henness is seeking to prevent Defendants from violating his constitutional rights in the process of carrying out his sentence. Under these circumstances, this Court should not permit Henness's execution to proceed before the Court has the opportunity to review the full merits of his constitutional claims. The delay resulting from granting the relief sought here will have little adverse effect on the State's interest and will ensure that it does not perform an unconstitutional execution. *See id.* And because Henness can show a substantial likelihood that the challenged state action is unconstitutional, "no substantial harm to others can be said to inhere its enjoinment." *Bays v. City of Fairborn*, 668 F.3d 814, 825 (6th Cir. 2012) (citation omitted). Additionally, Henness "has a strong interest in being executed in a constitutional manner," *Beaty v. Brewer*, 649 F.3d 1071, 1072 (9th Cir. 2011). That interest outweighs the State's interest in carrying out an unconstitutional execution.

Accordingly, the risk that Henness will be subjected to an unconstitutional execution outweighs the State's interest in carrying out Henness's sentence on February 13, 2019. *See In re: Ohio Execution Protocol Litig. (Lorraine)*, 671 F.3d at 602; *In re: Ohio Execution Protocol Litig. (Lorraine)*,

840 F. Supp. 2d at 1058–59; *Cooey (Smith)*, 801 F. Supp. 2d at 656–58; *see also In re Ohio Execution Protocol Litig. (Phillips, Tibbets, Otte)*, 235 F. Supp. 3d 892, 958–60 (S.D. Ohio Jan. 26, 2017), reversed on other grounds, *Fears*, 860 F.3d 892.

E. The public interest would be served by issuing injunctive relief.

The "public interest is served only by enforcing constitutional rights and by the prompt and accurate resolution of disputes concerning those constitutional rights." *In re: Ohio Execution Protocol Litig. (Lorraine)*, 840 F. Supp. 2d at 1059; *see also Bays*, 668 F.3d at 825 (citing *Deja Vu of Nashville, Inc. v. Metro. Gov't of Nashville & Davidson Cnty.*, 274 F.3d 377, 400 (6th Cir. 2001)); *Miller*, 622 F.3d at 540 ("[w]hen a constitutional violation is likely . . . the public interest militates in favor of injunctive relief because 'it is always in the public interest to prevent violation of a party's constitutional rights.'") (quoting *Connection Distributing Co. v. Reno*, 154 F.3d 281, 288 (6th Cir. 1998)).

On the other hand, the Supreme Court reiterated in *Baze* and *Glossip* that its Eighth Amendment jurisprudence prohibits cruel and inhumane executions. *See Baze*, 553 U.S. at 48–50; *Glossip*, 135 S. Ct. at 2737. And the public has no interest in seeing its citizens' rights violated in the context of the execution process. *See In re: Kemmler*, 136 U.S. at 447; *see also In re: Ohio Execution Protocol Litig. (Lorraine)*, 840 F. Supp. 2d at 1059 (finding that "the public interest has never been and could never be served by rushing to

judgment at the expense of a condemned inmate's constitutional rights"); *see also In re Ohio Execution Protocol Litig. (Phillips, Tibbets, Otte)*, 235 F. Supp. 3d 892, 958–60 (S.D. Ohio Jan. 26, 2017), reversed on other grounds, *Fears*, 860 F.3d 892.

Accordingly, this factor also weighs in Henness's favor.

IV. There Has Been No Undue Delay In Bringing Henness's Claims.

To the extent that there may be an additional equitable timing element involved in the consideration of whether to grant a stay of execution (as distinguished from a preliminary injunction) to Henness, that factor does not weigh against Henness here, because he has not been dilatory in bringing his claims.

Any presumption against a stay based on equity is a conditional one: "[T]here is a strong equitable presumption against the grant of a stay *where a claim could have been brought at such a time as to allow consideration of the merits without requiring entry of a stay*." *Nelson v. Campbell*, 541 U.S. 637, 650 (2004) (emphasis added); *cf. McGehee v. Hutchinson*, 854 F.3d 488, 492 (8th Cir. 2017) (en banc) (per curiam) (concluding that "the prisoners' use of 'piecemeal litigation' and dilatory tactics is sufficient reason by itself to deny a stay"). In other words, any equitable presumption against a stay only arises when the inmate could have received merits consideration of his claim without a stay by filing his suit earlier.

That is plainly not the case here. The first case presenting a challenge to Ohio's lethal injection methods was filed by Richard Cooey in 2004, numerous

other inmates have intervened or otherwise joined this litigation, and other similar cases have been filed and consolidated with *Cooey* since. Nevertheless, a genuine and proper merits consideration of the claims has not yet been possible. Defendants have consistently promulgated new execution policies over the last several years, including with the most recent of those on October 7, 2016. Those shifting changes, the parties and this Court have agreed, necessitated filing the pleadings that constitute Henness's current Complaint, to wit, the Fourth Amended Omnibus Complaint (ECF No. 1252, filed Sept. 22, 2017), and Henness's Second Amended Individual Supplemental Complaint (ECF No. 1494, filed Apr. 12, 2018). Those pleadings were filed in accordance with this Court's Scheduling Orders (*see, e.g.*, ECF No. 523, 527, 1395, 1396). So was this motion. (*See* Scheduling Order, ECF No. 1914, Amendments to Scheduling Order, ECF No. 1918.) Further, Henness's claims at issue in this motion rely in part on evidence generated during recent executions that was not available until recently.

This case will ultimately go to trial on the merits, but not before Henness's scheduled execution date of February 13, 2019. He was not dilatory in filing his claims. To the contrary, he could not have filed his claims at such a time as to allow consideration of the merits without requiring entry of a stay and injunctive relief. Consequently, no *Nelson* presumption against a stay applies here. This factor does not weigh against a stay of execution.

V. This Court Should Grant A Hearing On This Motion.

Finally, this Court should grant an evidentiary hearing on this motion. Although an evidentiary hearing is not required in every case where a preliminary injunction is requested, there are circumstances where a hearing must be granted. *Certified Restoration Dry Cleaning Network, L.L.C. v. Tenke Corp.*, 511 F.3d 535, 552-53 (6th Cir. 2007). The key inquiry in determining if an evidentiary hearing is necessary is whether material facts are in dispute. *Id.* at 553. Material facts are in dispute in Henness's case, and an evidentiary hearing should accordingly be granted. Specifically, Henness is prepared to demonstrate that he can satisfy both prongs of the two-part test required under *Glossip* to show a strong likelihood that Defendants' three-drug IV-injected midazolam lethal injection protocol violates the Eighth Amendment's ban on cruel and unusual punishment. Defendants dispute Henness's allegations, however. In light of that dispute, this Court should grant a hearing. *See Certified Restoration*, 511 F.3d at 553.

Perhaps even more important, however, is that a hearing would be helpful for the Court. Henness intends to present new evidence, new arguments, and new witnesses, none of which this Court has previously heard or considered, which will establish that Henness can satisfy his constitutional burden on these claims. Henness also intends to further demonstrate that the courts previously misinterpreted and misapplied the relevant science. A hearing presents an opportunity for presentation and clarification of Henness's

case in this life-or-death matter that cannot be approximated any other way. Consequently, this Court should grant a hearing on this motion.

VI. Conclusion and Prayer for Relief

Defendants intend to use a Phillips head screwdriver to drive a flathead screw. They will inject Henness with several ounces of extremely caustic acid that will be sure or very likely to burn like fire upon injection and immediately attack his lungs, rapidly filling them with fluid. That large volume of acid will sedate Henness, perhaps even to the point where he can no longer convey to communicate that he is in pain. But the acid will not have any pain-blocking capabilities to protect Henness from the acute pulmonary edema and burning in his veins; in the absence of a pain-blocking drug, Henness will remain sensate regardless of his ability to communicate what he is experiencing. Nor will that acid protect Henness from the indisputably severe pain and suffering that follows when Defendants inject the paralytic and potassium chloride. It is sure or very likely that Henness will feel severe pain and suffering as a result. That is objectively intolerable, particularly when, as Henness will demonstrate, there are alternatives that are available, feasible, and readily implemented that significantly reduce the substantial risk of serious harm posed by the current protocol's drugs. Defendants will violate Henness's Eighth Amendment right against cruel and unusual punishment if not enjoined from using their current execution protocol. And Defendants have no legitimate penological justification for not adopting either of those methods, also a violation of the Eighth Amendment's prohibition on cruel and unusual punishment.

Consequently, Henness has a strong likelihood of prevailing on the merits of his each of the claims asserted above; there is a threat of irreparable harm to him that only injunctive relief and a stay of execution can remedy; an injunction will not cause substantial harm to others; and the public interest lies in favor of not subjecting Henness to an unconstitutional execution. Furthermore, as to any additional consideration for stays of execution, there is no failure of diligence on Henness's part.

For the reasons outlined in this memorandum, this Court should further:

1) grant Henness expedited discovery as needed;

2) grant Henness a multi-day evidentiary hearing on his motion, of sufficient duration to accommodate numerous expert and lay witnesses;

3) grant Henness the opportunity to submit post-hearing briefing, if the Court deems it necessary;

4) grant Henness's motion, granting him a stay of execution staying enforcement of Henness's death warrant and a preliminary injunction prohibiting Defendants or anyone acting on their behalf from attempting to implement any element of Defendants' Execution Protocol as to him on or before his scheduled execution date of February 13, 2019, and until further order of the Court; and

5) grant any other relief as this Court deems appropriate.

Respectfully submitted this 28th day of September, 2018.

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by

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CERTIFICATE OF SERVICE

I hereby certify that on September 28, 2018, I electronically filed the foregoing **Plaintiff Warren K. Henness's Motion for a Stay of Execution, a Preliminary Injunction, and an Evidentiary Hearing** with the Clerk of the United States District Court for the Southern District of Ohio using the CM/ECF system, which will send notification of such filing to counsel for all parties.

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